

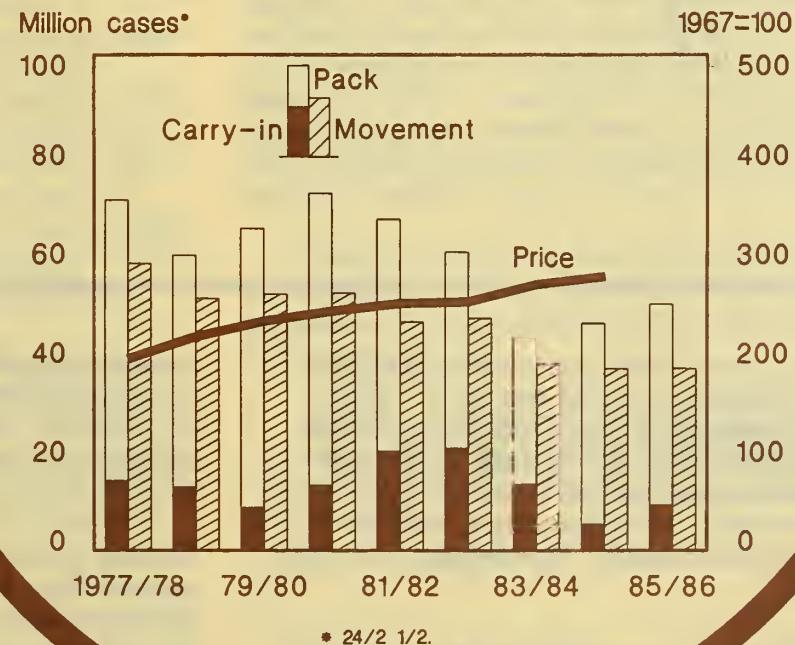
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Fruit

Situation and Outlook Report

U.S. Canned Noncitrus: Supply, Movement and Producer Price Index



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SUMMARY

In spite of smaller apple, grape, and pear crops, probable increases in 1986/87 citrus production are likely to hold grower prices this fall slightly below last year. Heavy supplies of low-priced Brazilian orange juice will weigh on U.S. orange prices. The August 1 forecast for the major U.S. noncitrus fruit crop in 1986, including grapes, was 11.7 million tons, down 8 percent from last year. The apple crop is forecast at 7.8 billion pounds, off 1 percent from last year. Crops of grapes and pears are expected to drop 12 and 3 percent from 1985, respectively.

Citrus groves in Florida and Texas are still recovering from the four freezes that have occurred in the last 5 winters. Supplies of oranges, grapefruit, and lemons this winter may be bigger than last year, but still below levels before the series of freezes. Moreover, the citrus canker recently discovered in the Florida commercial groves could hurt citrus production in the long term. With the sluggish economy, demand for fruit will likely be stable.

Reduced crops of clingstone peaches, Bartlett pears, and plums will result in less canning than last year. But, the larger carryin stocks are likely to keep supplies of most canned fruit adequate during 1986/87. Movement of canned fruit has been slow, and higher stocks than last year have caused contract prices for major canning fruit to fall substantially from a year ago. Sufficient supplies combined with lower costs will keep wholesale prices for several canned fruits steady or lower than last season. To stimulate sales, packers have offered promotional allowances for certain sizes of canned fruit.

Because California grape production is expected to be down significantly this year, raisin output will be smaller. However, with large carryin stocks (including the reserve pool diverted by growers), raisin supplies should be adequate. Demand for raisins has picked up,

so prices may rise. The California prune crop is estimated to be well below 1985. With carryin stocks near a year earlier, the 1986/87 supply of dried prunes will be smaller than 1985/86, perhaps pushing up prices.

Strong grower prices have increased deliveries of strawberries to California freezers. The overall pack of frozen strawberries on the West Coast will probably be slightly above last season. Imports of frozen strawberries, mostly from Mexico, have been considerably lower than a year ago. Even with the reduced imports, though, total U.S. supplies of frozen strawberries on during 1986/87 are expected to be near a year earlier. Strong demand should keep prices firm. The sharply smaller tart cherry crop will result in reduced supplies of frozen tart cherries. Grower prices for tart cherries are likely to rise from last year's low levels.

This season's larger crop has weakened prices for fresh oranges and orange products. With the same juice yield estimate as last season, the bigger Florida orange crop has led to a 12-percent gain in the pack of frozen concentrated orange juice (FCOJ). Also, imports into Florida are likely to rise during the rest of the season. Nevertheless, smaller carryin stocks are still expected to leave total FCOJ supply for 1985/86 only moderately above 1984/85. Lower prices (f.o.b. Florida processors) have strengthened movement. With adequate supplies, prices are likely to remain steady during the balance of the season.

Despite a larger crop, this season's prices for Florida grapefruit were firm. Demand for processed grapefruit products has been strong, supporting prices.

Supplies of almonds, walnuts, and filberts are expected to be smaller than last season. Demand is likely to stay strong, so prices should climb.

GENERAL PRICE OUTLOOK

Grower prices for fresh and processing fruit have been moderately to substantially below a year ago. The July index of grower prices was 164 (1977=100), 7.3 percent below June and 9.4 percent below a year earlier. The decrease from last year was primarily due to lower prices for lemons, oranges, and strawberries, although prices were higher for apples and peaches. The index is expected to decline further this fall with seasonal increases in supplies of apples, pears, and citrus. However, noncitrus prices are likely to remain fairly high because supplies of apples, grapes, and pears are smaller overall than the preceding season.

Retail fresh fruit prices advanced in July after a moderate decline in June. The

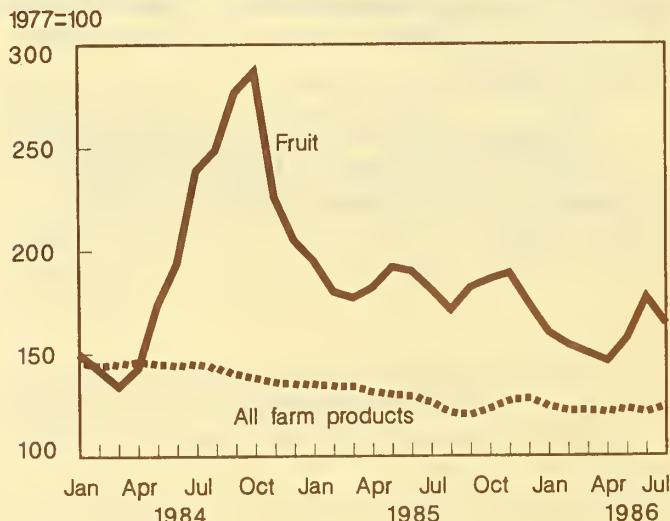
Table 1.—Index of annual and quarterly prices received by growers for fresh and processing fruit, 1983-86

Year	Annual	1st	2nd	3rd	4th
1977=100					
1983	128	126	127	110	151
1984	202	142	170	255	239
1985	183	184	188	178	183
1986		155	160	1/ 164	

1/ July's figure only.

SOURCE: Agricultural Prices, NASS, USDA.

Prices Received by Producers, Fruit and All Farm Products



Consumer Price Index (CPI) from the Bureau of Labor Statistics (BLS) was at 382.2 (1967=100) in July, rising 2.6 percent from June, but standing 3.3 percent below a year earlier. Monthly price increases were reported for all fruits except bananas. However, the CPI is likely to drop this fall because of seasonally increased supplies of citrus and apples.

Reversing the downward trend, retail prices of processed fruit rose slightly in July. The BLS July index of processed fruit stood at 161.8 (December 1977=100), up 0.2 percent from June, but still 4.4 percent below a year earlier. However, prices of canned and dried fruit were still slightly above a year ago. Even with large availability from Brazil, FCOJ prices are likely to stay steady during the

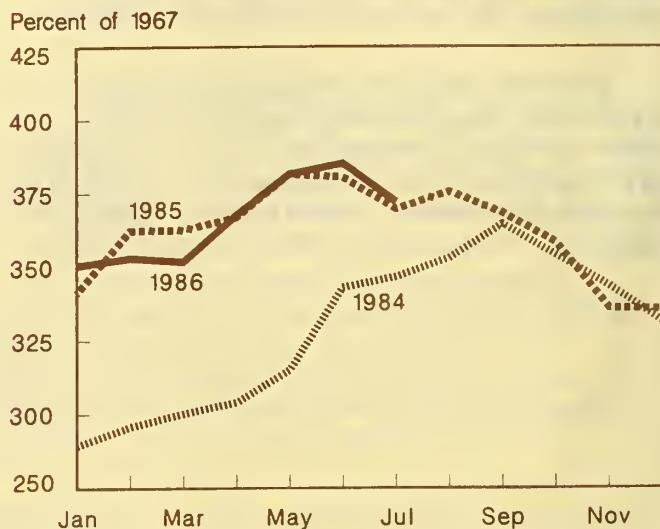
Table 2.—Annual and quarterly consumer price indexes for fresh fruit, 1983-86

Year	Annual	1st	2nd	3rd	4th
1967=100					
1983	296	274	301	324	285
1984	329	295	321	355	343
1985	362	356	377	372	344
1986		352	375	1/ 382	

1/ July's figure only.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

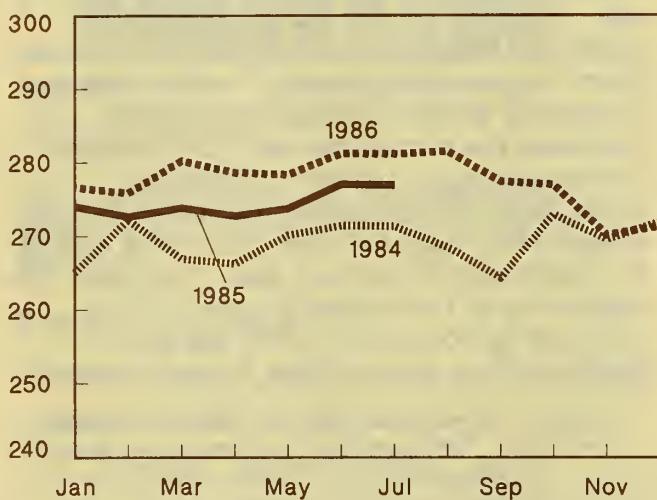
Fresh Fruit: BLS Consumer Price Index



remainder of the season. Because of smaller crops of clingstone peaches and Bartlett pears, the canned fruit pack is expected to be less than a year ago. But, the larger carryover stocks will result in an adequate supply during the upcoming season. Supplies of raisins are also expected to be sufficient, although prices may advance. On average, retail prices of processed fruit are not likely to rise appreciably.

Canned Fruit: BLS Wholesale Price Index

Percent of 1967



NONCITRUS

Apples

Slightly Smaller Crop Expected

The August 1 forecast for 1986 U.S. apple production is 7.85 billion pounds, off 1 percent from last year. Decreased production in the Eastern and Central States more than offset production gains in the Western States.

The forecast for the Eastern States, 3.05 billion pounds, is down 4 percent from last year. New York, the leading apple State in the East, expects a crop of 1.01 billion pounds, 10 percent below a year ago. Frost damage limited production prospects in western New York. Set and fruit development have been erratic in eastern New York. The North Carolina crop, forecast at 110 million pounds, is down 60 percent from 1985. Late April and early May freezes, combined with the drought, have taken a toll on North Carolina apples. In contrast, Pennsylvania's crop of 610 million

Table 3.—U.S. noncitrus fruit: Total production, 1984, 1985, and indicated 1986

Crop	1984	1985	1986
1,000 short tons			
Apples	4,166	3,975	3,923
Apricots	127	132	69
Cherries, sweet	182	133	129
Cherries, tart	136	143	93
Grapes	5,194	5,605	4,936
Nectarines	183	211	195
Peaches	1,330	1,074	1,139
Pears	710	747	723
Plums and prunes	721	642	477
Total	12,749	12,662	11,684

SOURCE: Crop Production, NASS, USDA.

Table 4.—Frozen fruit and berries: Cold storage holdings, July 31, 1984-86

Commodity	1984	1985	1986
1,000 pounds			
Apples	51,235	45,807	58,595
Apricots	15,997	11,859	9,554
Cherries	75,914	199,217	216,372
Grapes	4,928	3,190	2,110
Peaches	16,507	20,581	19,322
Blackberries	12,566	12,745	16,056
Blueberries	30,734	23,223	24,176
Boysenberries	4,292	4,477	5,161
Raspberries, red	39,668	39,936	45,996
Strawberries	255,245	257,865	242,352
Other fruits and berries	80,710	88,075	90,837
Total	587,796	706,975	730,531

SOURCE: Cold Storage, NASS, USDA.

Table 5.—Apples: Regional production, 1984, 1985, and indicated 1986

Area	1984	1985	1986
Billion pounds			
East	3.26	3.17	3.05
Central	1.22	1.64	1.06
West	3.85	3.14	3.74
Total U.S.	8.33	7.95	7.85

SOURCE: Crop Production, NASS, USDA.

pounds is up 4 percent from 1985 and Virginia production, at 500 million pounds, is up 27 percent.

The Central States forecast, 1.06 billion pounds, is down 35 percent from 1985, with smaller crops reported for every State. Michigan, the leading State in the region, expects to harvest 700 million pounds, down 36 percent from last year. Late April and early May frosts hurt early varieties in Michigan. Weather was ideal for the late varieties in Michigan, though. Late April frosts also damaged the Illinois and Ohio crops.

The apple crop in the Western States is forecast at 3.74 billion pounds, up 19 percent from last year. However, reduced production is reported for all the States in the region except Washington. Washington, the Nation's leading apple State, expects a crop of 2.95 billion pounds, up 44 percent from 1985's small harvest. At 500 million pounds, apple production in California, the second largest producing State in the West, is 19 percent smaller than 1985. Oregon's crop forecast is 115 million pounds, 28 percent less. Idaho's crop forecast, 110 million pounds, is 16 percent smaller than 1985.

Grower Prices Up Slightly

Smaller supplies strengthened the 1985 season-average price for apple growers slightly from 11.2 cents a pound in 1984 to 11.6 cents. The higher grower prices were entirely due to a 10-percent increase in fresh apple prices; prices for processing apples fell 8 percent from 1984.

The seasonally reduced supplies early this summer further strengthened grower prices for fresh apples in 1986. The July price, 25.4 cents a pound, was up 5 percent from June and 46 percent from a year earlier. Prices are expected to remain strong until the marketing of the new apple crop gets underway this fall.

Smaller apple supplies and strong demand are likely to keep prices relatively firm. Domestic demand for fresh apples should be strong if the 1986/87 orange crop stays relatively small. The export market for 1986/87 may improve somewhat if the U.S. dollar remains weak. In addition, the Targeted Export Assistance Program (TEAP) has been announced by the USDA for Washington

apples. The program is intended to help offset the adverse effects on U.S. exports of subsidized EC competition. The \$1.4 million in TEAP resources for Washington apples primarily will be directed to supporting new promotional activities in the United Kingdom and expanding activities in Scandinavian and Pacific Rim markets.

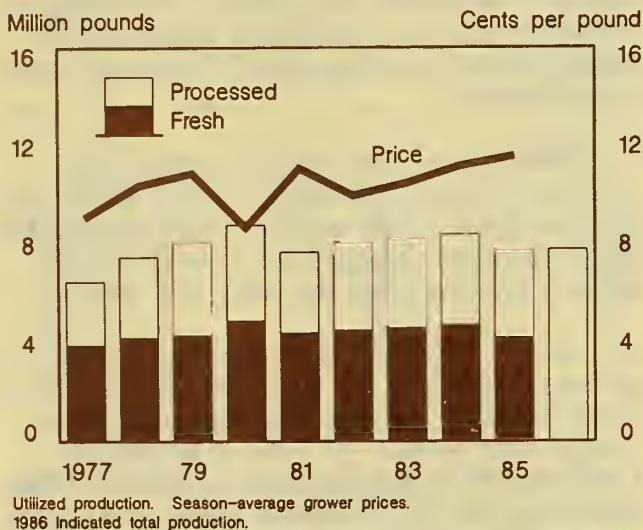
Processor demand for this year's apple crop looks favorable in view of strong demand for apple juice. Consequently, the smaller apple production in the Eastern and Central States is likely to boost prices for processing use. However, imports of apple juice continued heavy during 1985/86, up 6 percent from the preceding season. Further increase in imports would moderate apple price increases for processing use. The Michigan Processing Apple Growers Marketing Committee recommended that the minimum negotiated prices for most processing apples be moderately above last year. However, the marketing of this season's apples will be affected by controversy over the use of daminozide on some apples, because several

Table 6.--Processed apples: Season-average price per ton received by growers, by type of use, principal States, 1983-85

Use and State	1983	1984	1985
Dollars			
Canning:			
Michigan	124.00	138.00	130.00
New York	116.00	132.00	110.00
Pennsylvania	119.00	138.00	135.00
Virginia	106.00	130.00	164.00
Washington	112.00	117.00	128.00
West Virginia	118.00	182.00	140.00
United States	117.00	137.00	132.00
Juice and cider:			
California	120.00	109.00	76.00
Michigan	94.00	92.00	72.00
New York	84.00	84.00	66.00
Pennsylvania	84.00	96.00	74.00
Virginia	78.00	88.00	76.00
Washington	85.00	70.00	73.00
United States	89.00	88.00	74.00
Frozen:			
Michigan	180.00	166.00	142.00
New York	138.00	126.00	126.00
United States	161.00	151.00	139.00
Dried:			
California	156.00	133.00	128.00
New York	130.00	124.00	114.00
United States	106.00	123.00	133.00

SOURCE: Noncitrus Fruits and Nuts Mid-Year Supplement, NASS, USDA.

U.S. Apple Production, Utilization and Prices



supermarket chains and processors have announced a ban on buying daminozide-treated apples.

Exports Down, Imports Up

The smaller available supplies and higher prices reduced fresh apple exports. During 1985/86, exports of fresh apples totaled only 152,792 metric tons, down 27 percent from the previous year. Exports were reported down to all principal areas except Western Europe. Taiwan, the U.S. leading customer, cut its purchases 16 percent. Most countries in the East Asia and Pacific region also showed significant decreases. A substantially larger domestic apple crop weakened Canadian demand for U.S. apples; shipments to Canada were off 18 percent from a year earlier. Purchases by the Middle East and North Africa were also well below the preceding season. Saudi Arabia, normally a major customer, bought only 8,284 metric tons, compared with 28,384 the year before.

U.S. imports of fresh apples from almost all areas increased substantially in 1985/86. U.S. purchases totaled 146,384 metric tons, up 40 percent from 1984/85. Canada, the leading U.S. supplier, accounted for 29 percent of total U.S. imports. Continuing an upward trend, imports from New Zealand were up 48 percent from a year earlier. Imports from Chile also continued to show strong gains. With this year's fresh apple supplies from Washington larger and the U.S. dollar weaker, imports may fall somewhat this season.

Grapes

Crop Substantially Smaller

The U.S. grape crop is forecast at 4.94 million tons, 12 percent below last year and 5 percent less than 1984. The substantially smaller California crop is chiefly responsible.

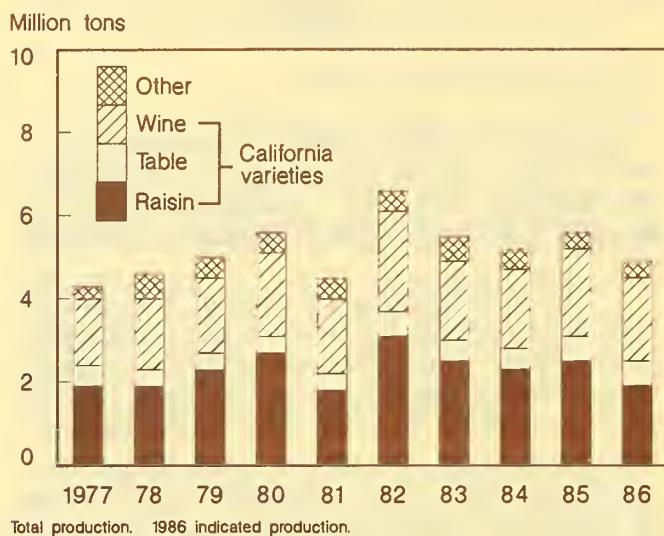
The California grape crop of 4.45 million tons is 14 percent below 1985 and 5 percent below 1984. The California crop accounts for 90 percent of the U.S. total this year, down from 93 percent in 1985. The raisin-variety crop forecast is 1.90 million tons, 23 percent below last year. Approximately 50,000 acres of Thompson seedless vineyards are enrolled in the raisin industry diversion program and are not producing a crop in 1986. An additional 5,100 acres will not be harvested because of vine pullouts and abandonment of vineyards before the harvest. Early reports indicate that the crop is light. Berry sizes are smaller than average and bunches are loose in many vineyards.

The forecast of California table-variety grapes is 550,000 tons, 5 percent below 1985. The USDA objective measurement survey showed 3,300 acres of bearing-age vines would not be harvested because of abandonment or preharvest pullouts. The forecast for California wine-variety grapes is 2 million tons, 7 percent below 1985. The objective measurement survey completed in July indicated that about 20,600 acres of wine grapes will not be harvested because of pullouts and abandonment.

Total grape production in other States is estimated at 485,500 tons, up 21 percent from 1985, primarily because of sharply larger crops in New York and Washington. The New York crop is forecast at 185,000 tons, up 27 percent. Early high temperatures and excess moisture have put the crop ahead of normal in most areas of the State. As of August 1, berries were already full size and fruit set was good.

Washington's all-grape forecast is 160,000 tons, up 38 percent from last year. Concord production is estimated at 140,000 tons and wine grape production at 20,000. The Washington Concord crop should yield better than last year's frost-damaged harvest.

U.S. Grape Production



According to trade sources, cluster count is slightly above average, but berry count is down.

Pennsylvania's grape production is also expected to be up 16 percent. However, the forecast for Michigan is 35,000 tons, 31 percent below last year. The decrease is due to heavy spring frosts and rain during bloom. The estimate for Arizona is a record-high 24,000 tons, 30 percent above last year.

Higher Prices Expected

Because of early maturity, shipments of fresh table grapes are running substantially ahead of last year's pace. Reflecting strong demand, prices are well above a year earlier. In early August, the f.o.b. price for Thompson seedless grapes was quoted at \$8.13 per 23-pound lug in central San Joaquin Valley, compared with \$7 a year earlier. Fresh market grape supplies will be down this season because of the smaller crop. In addition, the use of table grapes for the fresh market is not expected to increase appreciably. The market for competing uses of multipurpose varieties, particularly Thompson seedless, will likely be strong because of strong domestic wine shipments, improved demand for raisins, and the smaller crop. Consequently, table grape prices will probably be strong this year.

The grape crush in New York and Washington is likely to increase this year. However, California's crush will be down because of the State's smaller wine grape crop. The expected smaller crush, combined

with lower stocks and reduced imports, will result in smaller wine supplies. Demand for domestic wine has been strong. According to the Wine Institute, California shipments of wine through May rose about 10 percent from a year earlier.

During the same period, foreign wine shipments to the United States fell almost 16 percent from a year earlier. Wine imports are likely to remain sluggish because of higher prices resulting from the weak U.S. dollar.

Strong demand has strengthened wine prices reported by the BLS. The BLS Producer Price Index for wine in July was up slightly from a year earlier. In view of increased California wine shipments and a smaller crop, grower prices for California wine-type grapes are expected to average above last year's \$184 a ton.

Lower prices and increased promotion have encouraged demand for U.S. raisins for both the domestic market and export. According to the Raisin Administrative Committee, export shipments during 1985/86 increased 7 percent, while domestic shipments (including Canada) were almost 4 percent larger. Consequently, carryout inventory of free raisin tonnage at the beginning of August was well below a year earlier. The smaller grape crop is expected to cut raisin output. Currently, trade estimates place raisin production at approximately 300,000 tons, compared with 345,000 last year. However, the 1986/87 supply should still be adequate because of a large quantity of raisins in the reserve pool from the diversion program. Strong shipments have raised raisin prices well above a year ago. Continued healthy demand and higher grower grape prices may push raisin prices further.

Nectarines

The California nectarine forecast is 195,000 tons, 8 percent below the record 1985 crop but 7 percent above 1984. Acreage to be harvested, at 22,200, is off only slightly from 1985, but the yield per acre is down from 9.46 tons in 1985 to 8.78.

Because of early maturity, nectarine shipments through early August were running moderately ahead of last year. Demand has been good and consequently f.o.b. prices have

Table 7.—Nectarines: Acreage, production, yield per acre, 1980 to date

Season	Acreage			Production	Yield per bearing acre
	Bearing	Nonbearing	Total		
	1,000 acres			1,000 short tons	
California:					Tons
1980	18.4	9.0	27.4	191.0	10.38
1981	21.0	7.4	28.4	182.0	8.67
1982	22.2	2.4	24.6	178.0	8.02
1983	22.3	4.4	26.7	185.0	8.30
1984	23.9	4.5	28.4	183.0	7.66
1985	22.3	N.A.	22.3	211.0	9.46
1986 1/	22.2	N.A.	22.2	195.0	8.78

1/ Preliminary. N.A.= not available.

SOURCE: California Crop and Livestock Reporting Service.

moved up. In early August, the shipping point price was quoted at \$10 per two-layer lug (sizes 54-56) in the central and south San Joaquin Valley, compared with \$7.50 a year ago. The season-average price received by growers will likely be above last year's \$321 a ton.

Peaches

Moderately Larger Crop

The 1986 peach crop is forecast at 2.28 billion pounds, up 6 percent from 1985. Excluding California clingstone peaches, the U.S. crop is estimated at 1.35 billion pounds, up 16 percent from last year. California clingstones, at 930 million tons, are 6 percent below 1985. The California freestone forecast of 460 million pounds is 5 percent less than last year. Production in the nine Southern States is estimated at 411.4 million pounds, up 10 percent from last year. South Carolina's August 1 forecast of 250 million pounds is down 11 percent from the July 1 estimate but is still 9 percent above last year's crop. Dry, hot weather this summer hurt the South Carolina crop, reducing the size of the fruit.

Crops in several States that grow a large quantity of late peaches show a mixed pattern. Larger crops are reported for New Jersey, Pennsylvania, and Washington, while the Michigan harvest is expected to be down 18 percent.

Prices Lower

Shipments of peaches to the fresh market are running moderately ahead of last year's pace, primarily because of significantly increased movement from California. As a result, f.o.b. prices in California fell from year-earlier levels. In early August, the f.o.b. price for California peaches in the central and south San Joaquin Valley was quoted at \$5.75 per two-layer lug pack of 56-64's, compared with \$8.50 a year ago. As supplies dwindle seasonally, peach prices are expected to advance. Larger crops from the late-peach States probably will hold prices below last year. Sluggish movement and larger carryover stocks of canned peaches have weakened clingstone peach prices. The California Peach Association and canners have agreed to a 1986 field price of \$167 per ton for clingstone, compared with \$188.50 in 1985.

Canned Clingstone Carryin Up

This year's harvest of clingstone peaches in California is one of the earliest on record in the State, and through August 3, 247,798 tons of clingstones already had been delivered to canners, compared with 169,992 tons a year earlier. The total pack of canned clingstones nevertheless is expected to fall moderately because of the smaller crop. The expected smaller pack combined with 5.6 million cases of carryin should result in the 1986/87 total supply of canned peaches being only slightly below last year. Because of the sluggish movement, packers have offered promotional

allowances on certain can size of peaches. The sluggish movement, combined with the lower fruit costs, may keep canned peach prices steady or lower during 1986/87.

Canned Peach Exports, Imports Both Up

Exports of canned peaches during 1985/86 totaled 14,107 metric tons, up 23 percent from the previous season. Increased shipments were reported to almost all countries, but sharply higher purchases by Japan later in the crop year were chiefly responsible for the overall gain. Almost 58 percent of total exports went to the East Asia and Pacific region. Exports to non-EC also showed a strong gain, but shipments to Canada continued weak. Purchases by Latin America, Bermuda, and the other Caribbean countries were up slightly. Canned peach exports during 1986/87 may remain strong if prices and the U.S. dollar remain weak. Additionally, the USDA recently announced that it will use generic certificates to pay for the TEAP to promote canned peaches in Japan and Taiwan. The EC cut its production subsidy on canned peaches by 25 percent in keeping with the trade dispute settlement reached last December.

Imports of canned peaches during 1985/86 totaled 28,792 metric tons, up 14 percent. Imports from Spain and South Africa declined while shipments from Chile grew 28 percent.

Pears

Crop Down Slightly

The August 1 forecast for the 1986 U.S. pear crop is 723,450 tons, down 3 percent from last year but 2 percent more than the 1984 crop. Output of Bartlett pears in California, Oregon, and Washington is forecast at 463,000 tons, down 1 percent from 1985. Reduced production in Oregon more than offset increased output from California and Washington. The California crop is reported to be in good condition and at good sugar levels. Oregon's fruit sizes have been smaller than desired. Part of the fruit in Oregon's Hood River Valley is of good size and quality, while other fruit shows considerable marking.

Production of pears other than Bartletts in the Pacific Coast States is forecast at 220,000 tons, off 9 percent from last year. Smaller crops are expected for Oregon and

Washington, the principal suppliers of pears for the fresh market in winter and spring. California production, normally small, is estimated at 10,000 tons, down 5 percent from last year. Quality is good in most California-grown varieties and excellent in the Asian varieties. Crops are estimated down 75 and 24 percent, respectively, for Colorado and Utah. Growers in Michigan, New York, and Pennsylvania anticipate larger crops, while Connecticut production will be unchanged.

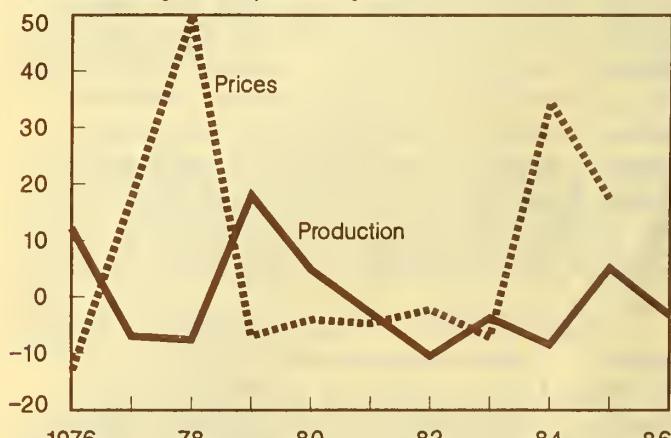
Higher Winter Pear Prices Probable

Opening f.o.b. prices for California Bartlett pears were moderately below a year earlier. In early August, the f.o.b. price for Bartlett pears was reported at \$15.10 a standard box carton 90-135s at the Mendocino County district, compared with \$15.70 a year earlier. Demand for Bartlett pears from packers is not likely to be as strong as a year ago because of larger carryover stocks. Thus, more Bartlett pears will probably be marketed for fresh use.

Pear shipments for fresh market are running somewhat ahead of last year. Larger supplies for fresh market are likely to keep f.o.b. prices for Bartlett pears below last year. Because of sluggish movement and larger carryover stocks, the contract price for California Bartlett pears for canning has been settled at \$177 a ton, compared with \$206 last year. On the other hand, the smaller supply of pears other than Bartletts in the Pacific Coast

U.S. Pears: Changes in Production and Prices

Percent change from previous year



Season average prices. Utilized production.
1986 indicated production.

is expected to strengthen grower prices of winter pears above a year earlier during the fall and winter.

Imports of canned pears, mostly from Spain, almost tripled from 1984/85 to 17,633 metric tons. These increased supplies combined with sluggish movement resulted in a significantly bigger carryover stock of canned pears, the biggest since 1983. Consequently, even with the expected smaller pack, this season's total supply of canned pears should be adequate. To stimulate sales, packers have offered promotional allowances for certain size cans.

Exports of Fresh Pears Strong

The weaker U.S. dollar and smaller European pear production have contributed to strong exports of U.S. fresh pears. Exports of fresh pears during 1985/86 totaled 29,689 metric tons, up 9 percent from the preceding season. Canada, the leading customer, bought 3 percent more than last year. Shipments to Western Europe more than doubled from 1984/85. Purchases by the Middle East and North Africa were down sharply, while the East Asia and Pacific region bought significantly more. Purchases by Latin America also showed a moderate gain.

Plums and Prunes

Plum Crop Plummets

California plum production is estimated at 130,000 tons, 22 percent below last year. Hail and wind storms early in the season damaged orchards in Fresno and Tulare counties. Fruit size and quality are good, though. Because of the smaller crop, shipments are running well below last year. Reduced supplies have pushed prices quite a bit higher than a year earlier. In early August, the shipping point price for Friar plums was quoted at \$12.00 a 28-pound carton in the central and south San Joaquin Valley, compared with \$8 a year earlier. Since supplies will fall seasonally, prices should remain strong. The season-average price should be well above last year's high \$514 a ton.

The prune and plum crop in Idaho, Michigan, Oregon, and Washington is estimated at 46,500 tons, 8 percent below

1985. Lower estimates are reported for all but Idaho. Michigan's crop is forecast at 10,000 tons, down 9 percent from last year, but quality is excellent, with large fruit. The Oregon crop is estimated at 22,000 tons, off 12 percent from 1985. Much of the reduction was due to winter tree damage in the Milton-Freewater areas. Washington's forecast, at 8,500 tons, is down 17 percent from last year. There was some winter damage to trees, but the major cause of the production decrease was the extremely heavy June drop of developing fruit from trees. In contrast, Idaho's crop of 6,000 tons is 33 percent above last year, despite frost and hail damage, and the crop is developing ahead of normal.

California dried prune production is forecast at 100,000 tons, 28 percent below 1985. This is the smallest crop since 1972. Heavy rains and high winds reduced pollination. Because trees are growing fewer fruit, their sizes are large and sugar content is high. The reduced crop and the slightly smaller carryin stock will result in a much smaller supply this season than in 1985/86. The industry currently estimates that the available supply of dried prunes for the upcoming season will be 159,354 tons (natural condition), compared with 196,288 tons last season. Because of the sharply reduced supply in prospect, bulk packers have remained withdrawn from the market.

According to the California Prune Marketing Committee, dried prune shipments during 1985/86 totaled 140,655 tons, up slightly from a year earlier. Increased domestic shipments more than offset reduced export shipments. Exports totaled about 50,000 tons, a decrease of 6 percent from the previous season, primarily reflecting reduced shipments to Algeria. Last year, shipments to Algeria totaled nearly 4,000 tons, but the Algerians did not buy any this year. In contrast, exports to Europe amounted to 34,907 tons, up 6 percent from last year, accounting for 69 percent of total exports.

The 1986 prune prices have not been established. Wholesale prices of dried prunes have been slightly below a year ago. With smaller supplies, prices may climb from last season's level. The California Prune Marketing Committee has recommended that 100 percent of the 1986 prune crop be salable.

CITRUS

The final estimate of U.S. citrus production for 1985/86 is 11 million tons, 5 percent above 1984/85, primarily because of a 15-percent increase in Florida oranges. Larger crops are also estimated for grapefruit and tangerines. However, supplies of oranges (mostly California Valencia) to be marketed during the remainder of the summer are smaller than last year. Because of the larger overall crop, orange prices have averaged below last season's high. Prices for orange products have also been lower than a year ago, while those for grapefruit products have been strong.

The 1986/87 citrus crop may remain relatively small because citrus groves in Florida and Texas are still recovering from the four freezes that have occurred in the last 5 years. The recently discovered citrus canker in the commercial groves may hurt production in the long term, because many trees have been destroyed to prevent spread of the disease.

Oranges

Remaining Supplies of California Valencias Significantly Smaller

The July 1 forecast of U.S. orange production for 1985/86 is 176.2 million boxes, up 11 percent from last season's freeze-damaged crop. In Florida, the all-orange estimate is 119.2 million boxes, 15 percent above 1984/85. California's orange crop is estimated at 54.3 million boxes, up 4 percent as the larger navel crop more than offset the reduced Valencia crop. Because of the smaller California Valencia crop, the supply remaining in mid-August was almost 22 percent below a year earlier.

Through August 15 this season, sales of Valencia oranges for processing use and export markets were sharply reduced, while shipments for domestic fresh use were up significantly from a year earlier. Consequently, domestic fresh sales accounted for 49 percent of total shipments, up from 40 percent in the previous year. Market share for exports gained slightly, while that for processing use was down sharply. With greatly reduced supplies, this season is likely to finish much sooner than last.

Fresh Orange Prices Significantly Lower

Because of the larger U.S. crop, on-tree returns to growers for fresh oranges have been significantly below a year ago. Even with the sharply smaller remaining supplies of California Valencias, California orange prices are still weak this summer. The weak prices are probably due to reduced demand from processors. The larger quantity of oranges available for the fresh market has also depressed grower prices for fresh use. July's U.S. on-tree returns for fresh oranges averaged \$4.68 a box, compared with \$9.06 a year earlier. With seasonally increased supplies of fresh noncitrus fruit, Valencia orange prices are expected to remain below a year earlier through early fall.

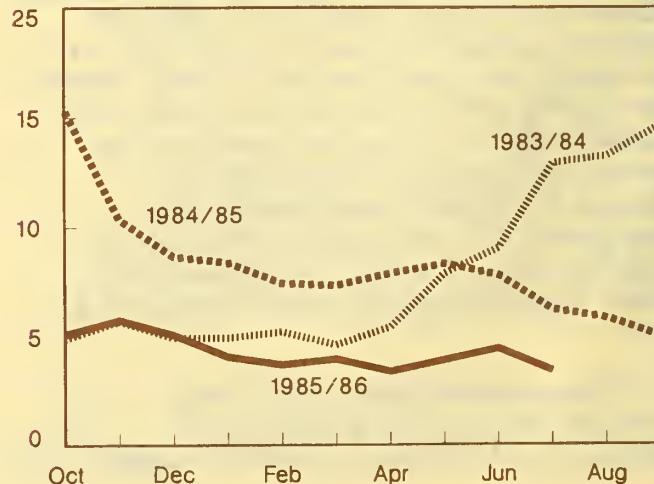
Following decreased grower prices, retail fresh orange prices continued weak this summer. The BLS retail prices for fresh Valencia oranges in July averaged 46.7 cents a pound, compared with 57.1 cents a year before. Prices are likely to remain lower throughout the early fall.

Exports Down Moderately

Foreign demand for U.S. fresh oranges continued sluggish this season. Through June, this season's exports totaled 274,500 metric tons, down 5 percent from a year earlier, due to smaller shipments to Canada. However, Hong Kong, the second largest market for U.S. fresh oranges, has purchased much larger quantities than a year ago. In contrast,

All Oranges: U.S. Equivalent On-Tree Returns Received by Growers

Dollars per box



shipments to Japan have been off moderately to date. Overall, U.S. exports to the East Asia and Pacific region recorded a slight increase. U.S. fresh orange shipments to the European Community have remained lackluster even though the normal quantities are very small.

In contrast, U.S. imports of fresh oranges have been up sharply this season. From November 1985 to June 1986, imports totaled 26,324 metric tons, up 29 percent from a year earlier. Combined imports from Israel and Spain rose 72 percent, accounting for almost half of total imports. On the other hand, imports from the Dominican Republic and Jamaica decreased significantly.

FCOJ Pack Substantially Larger

This season's juice yield was an estimated 1.38 gallons per box at 42.0 degree Brix, unchanged from 1984/85. But, the larger Florida orange crop has resulted in a pack of 132 million gallons of FCOJ, up 12 percent from last season. Imports of FCOJ into Florida and the United States as a whole have been significantly below a year ago. According to the Florida Citrus Processor Association, imports into the State (mostly from Brazil) totaled 48.6 million gallons (42 degree Brix) through August 9, down 15 percent from last year. Even with the reduced carryin stocks, the 1985/86 supply of FCOJ is likely to total moderately above last season, presuming imports into Florida rise during the remainder of the season.

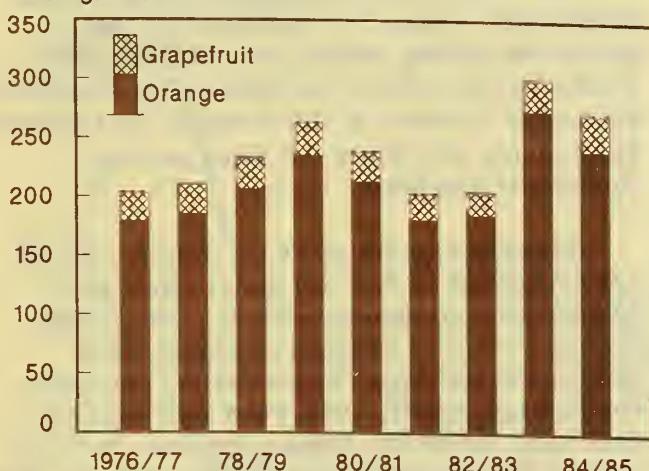
Because of lower prices, movement has been moderately ahead of last season. The f.o.b. price has been reduced to \$3.84 a dozen 6-ounce cans (unadvertised brands, Florida canneries), compared with \$5.02 a year ago. The lower price is primarily due to the reductions in Brazilian FCOJ from \$1,800 to approximately \$800-\$900 a metric ton (f.o.b. Santos). Because of reduced supplies and increased movement, FCOJ stocks as of August 9 were 15 percent below a year earlier. Nevertheless, f.o.b. prices may stay steady through the remainder of the season.

Movement of Chilled Orange Juice Strong

In response to good demand, Florida packers processed 268 million gallons of chilled orange juice (including fruit, single-strength reprocessed, and FCOJ)

Florida Packs of Chilled Citrus Juice

Million gallons



Season beginning October.

through August 9, up 14 percent from a year earlier. F.o.b. prices of chilled orange juice have weakened and consequently sales have increased. Through August 9, total movement of chilled orange juice amounted to 240 million gallons, up 15 percent from a year before. The f.o.b. price currently is quoted at \$9.14 per dozen 32-ounce glass containers (Florida canneries), compared with \$9.97 a year ago. If prices remain steady or go lower, movement will stay strong throughout the season.

Supplies of Canned Orange Juice Smaller

Reflecting smaller carryin stocks, the Florida canned orange juice supply is moderately less than last season. Through late August, Florida packers had canned 6.8 million cases of single-strength orange juice (24-2's), slightly above a year earlier.

Despite lower prices, product movement has been sluggish. Prices have been weak, with trading as much as 25 cents under the list price of \$10 per dozen 46-ounce cans (single-strength sweetened and unsweetened). This compares with \$13.15 a year ago. Sluggish movement and increased pack more than offset smaller carryin stocks, resulting in stocks on August 9 slightly above a year earlier. Slow movement is likely to keep prices weak throughout the season.

Brazilian Citrus Outlook

The 1985/86 orange crop in the commercial zone of Sao Paulo was a record

230 million boxes. Although the weather was extremely dry, other factors boosted output: more trees coming into production, less selective picking, and slightly higher yields. Production in 1986/87 is expected to be down somewhat because of the drought. In addition, juice yields will likely fall from uneven ripening of the fruit.

Brazil's exports of FCOJ during 1985/86 are estimated at 600,000 metric tons at 65 degree Brix, compared with 715,000 metric tons in 1984/85. Because of higher juice production and lower export sales, carryover stocks as of July 1, 1986 were well above a year ago. However, a sharp increase in FCOJ exports is estimated for 1986/87, probably due to much reduced prices.

After several extremely profitable years in a row for the Brazilian citrus industry, due primarily to Florida freezes, processors have reportedly lost millions of dollars because of weak international prices and higher prices paid to producers. The policies of quotas and minimum export prices have undergone considerable changes and will result in significant adjustments both for the industry and for producers.

Grapefruit

Remaining Supplies Significantly Larger

The July 1 forecast for the 1985/86 U.S. grapefruit crop is 58.5 million boxes, 3 percent above last season. Remaining supplies will come from Southern California, since the 1985/86 Florida harvest was virtually complete on July 1. California's supplies as of July 1 were well above a year earlier and they should be adequate until the 1986/87 harvest gets underway this fall.

Demand for Florida grapefruit for the fresh market was strong during the 1985/86 season because of small supplies of Texas grapefruit. Even with the larger crop, f.o.b. prices for Florida's fresh grapefruit were relatively firm this season. As supplies have dwindled seasonally, prices have strengthened. The July on-tree returns for California-Arizona grapefruit sold fresh averaged \$8.22 a box, up 2.6 percent from June but down 7.1 percent from a year earlier. Prices are expected to remain strong for the balance of the season.

Exports Up Sharply

Export demand for fresh grapefruit has been very strong this season. During 1985/86 (ending in June), exports totaled 238,364 metric tons, up 32 percent from a year earlier. Purchases by the EC increased 50 percent, with France--the leading EC customer--taking 38 percent more than the preceding year. Japan, the leading U.S. customer worldwide, boosted its purchases 43 percent from the year before. Consequently, shipments to the East Asia and Pacific region accounted for 57 percent of total exports, compared with 51 percent from 1984/85.

The weakening U.S. dollar is probably the main contributor to the increased exports. Export markets are expected to remain strong if the dollar stays weak.

Grapefruit Juice Pack Mixed

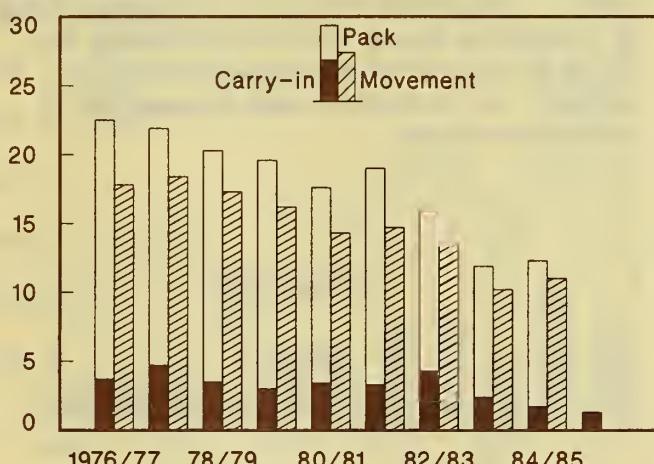
Florida packers processed 24.2 million gallons of frozen concentrated grapefruit juice (FCGJ) through early August, down slightly from a year earlier. In addition to smaller carryin stocks, the total supply of FCGJ this season will be slightly less than last. With prices higher, movement is running a bit behind last season. The f.o.b. price is \$4.17 per dozen 6-ounce cans (private brand, Florida canneries), compared with \$3.87 a year ago. Stocks on August 9 were slightly smaller than last year. Consequently, prices are likely to remain firm the rest of the season.

Florida's output of canned grapefruit juice during 1985/86 totaled 91 million cases (24-2's), a decrease of 7 percent from the preceding season. The smaller pack combined with the reduced carryin stocks has spelled a smaller supply this season. Because of higher prices, movement has been sluggish. The current f.o.b. price for canned grapefruit juice is quoted at \$10.15 a dozen 46-ounce cans (sweetened and unsweetened), compared with \$9.25 to \$9.65 last year.

Steeper prices for processing grapefruit have raised the prices for processed grapefruit products. The 1985/86 season average price for processing grapefruit for canned juice was \$4.96 a box, up 37 percent from the previous season. Despite smaller supplies, reduced movement left canned juice stocks as of

Florida Canned Grapefruit Juice: Pack, Movement and Stocks

Million cases*



* 24/2's. Season beginning October.

August 9 slightly above a year earlier. Nevertheless, canned juice prices will remain firm.

Because of strong demand, Florida packers processed almost 28.4 million gallons of chilled grapefruit juice (excluding single-strength reprocessed) through early August, up 5 percent from a year ago. Packers raised the pack because of larger utilization of fresh fruit and FCGJ. Despite higher prices, movement has been running slightly ahead of last season. The larger pack more than offset increased movement and reduced carryin stocks, resulting in stocks in early August well above a year ago.

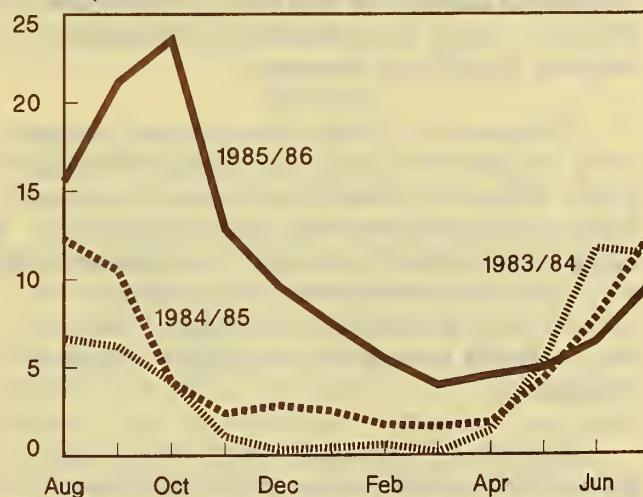
Lemons

The California-Arizona lemon crop totaled 18.6 million boxes, 28 percent less than 1984/85. The California forecast, 15.5 million boxes, is 22 percent below last season, while the Arizona crop is off 49 percent from 1984/85.

Because of the smaller crop, total movement this season was well behind the preceding season's pace, with processing use especially off. Domestic movement of fresh lemons was up moderately, while the export market was weak. The larger lemon crops in Italy and Spain have cut U.S. lemon shipments to the EC sharply. In addition, the higher EC tariffs from the citrus-pasta war affected U.S. exports. Japan, the leading U.S. customer, also purchased substantially less in

All Lemons: U.S. Equivalent On-Tree Returns Received by Growers

Dollars per box



1985/86. Nevertheless, U.S. lemon shipments to the East Asia and Pacific region during August 1985-June 1986 accounted for 91 percent of total lemon exports, compared with 84 percent a year ago.

F.o.b. prices for fresh lemons were very strong early in the season, but recently have dropped well below last year. However, according to the industry figures, the 1985/86 season-average price was almost 14 percent higher than that for the preceding season. Lemon prices are expected to stay relatively high throughout the summer because of the seasonally increased demand and reduced supplies. The industry currently forecasts that the 1986/87 crop will be a good deal above 1985/86. The official USDA forecast will be released October 10.

BERRIES

Strawberries

The 1986 strawberry crop in the major States is forecast at 977 million pounds, up slightly from 1985. The larger crop is attributed to increased harvested acreage, while yield per acre is down slightly. Estimates place the spring strawberry crop at 889 million pounds, up 2 percent from 1985. California, the leading strawberry State with 88 percent of the total crop, probably is harvesting slightly more than last year. Oregon, the second largest producer, is likely producing 62 million pounds, 23 percent more than last year. A colder-than-normal winter

caused some damage to Oregon's strawberry fields. Smaller crops are estimated for Michigan and Washington because of the freezes in the winter and spring. However, the New Jersey crop weathered the winter without significant damage.

Shipments of fresh strawberries through early August were slightly behind last year. F.o.b. prices for fresh strawberries in central California have been well above a year ago. In early August, the f.o.b. price was quoted at \$9 a 12-pint tray (medium to large size), compared with \$7.50 a year earlier. Prices will probably strengthen as supplies taper off seasonally.

Because of the larger crop and strong grower prices, deliveries of strawberries to freezers in California totaled 164 million pounds through late August, up 5 percent from a year earlier. Prices for processing strawberries have been strong this season. In Southern California, prices in late August ranged from a low of 24 cents a pound to a high of 29.5, depending on variety. Currently, prices paid to growers are 25 to 28 cents a pound in central producing areas. This compares with 20 to 23 cents a year ago. The larger Oregon crop has resulted in an 18-percent increase from a year ago in strawberry deliveries to freezers. In contrast, deliveries to Washington freezers were reported sharply smaller. Field prices in the Northwest have been much higher than last year, ranging from 35 to 47 cents a pound, compared with 23 to 35 cents a year ago. The overall pack of frozen strawberries on the West Coast will probably be slightly above last season.

Table 8.—Strawberry deliveries for freezing, 1985-86

State	1985	1986
Million pounds		
California 1/	153.1	163.8
Oregon 2/	46.4	54.8
Washington 2/	16.1	7.4
Total	215.6	226.0

1/ Through August 9. 2/ For the season.

SOURCE: Food Institute Report

Imports of frozen strawberries from Mexico through early August totaled 36 million pounds, off 11 percent from a year earlier. Even with the reduced imports, total U.S. supplies during the 1986/87 season are likely to be near to slightly above a year earlier. But, strong demand is expected to keep prices firm.

TREE NUTS

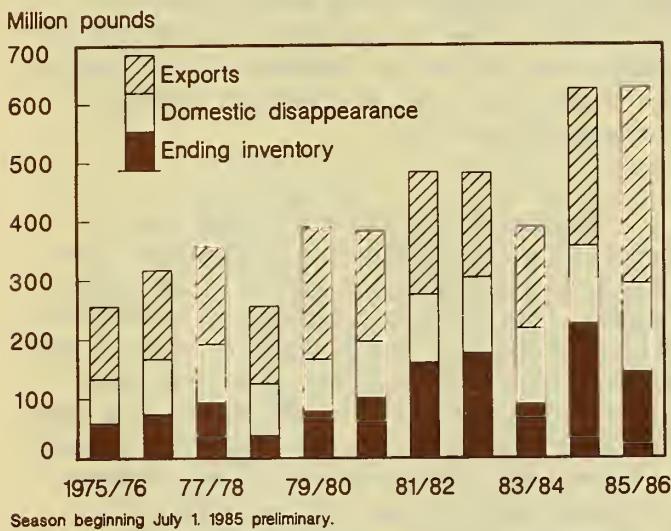
Almonds

Crop Sharply Smaller

The final forecast for the 1986 California almond crop is 265 million pounds, shelled basis, 43 percent below last year and 55 percent less than the 590-million-pound record set in 1984. Too much rain in major almond production areas during the critical bloom period hurt the crop. The objective measurement survey shows that the statewide average number of nuts set per tree is down 50 percent from last year. Nut sets this year vary greatly through the State, while nut sizes are generally quite large. The percentage of blanning (shells without nutmeat) is higher in some varieties, particularly the Nonpareil and Ne Plus. Nut deformity is reported as higher than normal, which may be partly due to the larger nut sizes. The California almond bearing acreage continues to increase; the latest forecast is 418,000, compared with 409,243 in 1985.

Shipments of almonds have been at a record high for both domestic and export markets. According to the Almond Board of California, 482 million pounds of almonds were sold during 1985/86, up 21 percent from a year earlier, with exports taking almost 70 percent. Export shipments totaled 332 million pounds, 24 percent more than the preceding year. Shipments were bigger to West Germany, the Soviet Union, Japan, France, and the United Kingdom. West Germany is the leading U.S. customer, with a gain of 43 percent. France and the United Kingdom, the other two major importers in Western Europe, also showed strong gains—37 and 41 percent, respectively. Overall, export shipments to Western Europe rose 36 percent and accounted for 55 percent of all U.S. almond exports.

U.S. Almond Supply and Utilization



The Soviet Union, the number-two customer after West Germany, continues to increase its purchases, with a gain of 51 percent this season. The Soviets have substituted U.S. almonds for filberts because available supplies of Turkish filberts have contracted. Exports to the USSR accounted for 20 percent of the total U.S. almond exports for 1985/86. Shipments to Japan, the third largest buyer, increased 26 percent from 1984/85. Altogether, exports to Western Europe, the Soviet Union, and Japan accounted for 87 percent of total U.S. almond exports this season.

Export prospects for the reduced 1986/87 supplies may remain relatively favorable. Additionally, USDA recently announced that it will use generic certificates to pay for the TEAP to help U.S. almond producers hurt by Egyptian and Indian import restrictions and the EC's refund program. The TEAP is aimed at increasing U.S. almond sales in Japan and Korea as well. Promotional activities will be carried out cooperatively by USDA and the industry. USDA will reimburse firms up to 50 percent on approved promotional activities in eligible countries during 1986/87.

Domestic demand for almonds has also been strong; shipments totaled 150 million pounds during 1985/86, up 15 percent from the previous season. With larger shipments, carryout stocks are well below a year ago. The smaller crop and reduced carryout stocks will result in significantly smaller almond supplies in 1986/87 than in 1985/86. Prices for

the 1986 crop have not been established. The smaller supplies will strengthen almond prices during the upcoming season. In 1985, the U.S. average grower price was 68 cents a pound, down 12 percent from 1984.

Walnuts

Crop Notably Smaller

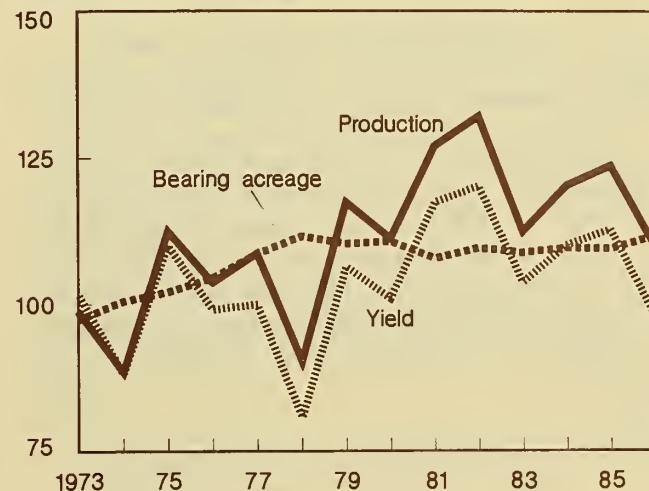
The August 1 forecast of the 1986 California walnut crop was 195,000 tons, down 11 percent from 1985 and 8 percent below 1984. Untimely April rains during the pollination period reduced the nut set, especially in early varieties such as Payne and Ashley. Hartley and other midseason varieties and late-season varieties such as Franquette have good to excellent sets of nuts that should reach good size. Overall, sizes should be large because of the smaller average sets this year.

According to the Walnut Marketing Board, 1985/86 shipments of in-shell walnuts through June totaled 126,108 tons, down 7 percent from a year before, with decreased shipments reported for both domestic and export markets. In contrast, shelled walnut sales to domestic and export markets were up 6.5 and 36.5 percent, respectively.

Most walnut exports went to Western Europe, with Spain and West Germany together taking 57 percent of all shelled sales and 73 percent of in-shell sales through June. Combined shipments of shelled walnuts to

California Walnuts: Acreage, Production, and Yield Per Acre

Percent of 1973-75 average



these two countries increased 75 percent from a year ago, while shipments of in-shell walnuts were up 10 percent. The weakening of the U.S. dollar probably has strengthened U.S. walnut sales in Western Europe. Shipments of in-shell walnuts to the Netherlands showed a big drop from last year, though.

U.S. walnut exports to the East Asia and Pacific region have been relatively strong. The recent announcement that U.S. in-shell walnuts are free of codling moths likely will enhance exports to Japan.

The smaller crop will probably result in moderately smaller walnut supplies in 1986/87 than in 1985/86. Prices for the 1986 crop have not been established. The smaller supplies likely will strengthen prices during the coming season. In 1985, the U.S. average grower price for walnuts was \$737 a ton, up slightly from 1984.

Filberts

*Significantly Smaller crop,
But the Third Largest Expected*

Oregon and Washington filbert growers are expecting to harvest a 17,300-ton crop

(in-shell basis) in 1986, the third largest crop on record, down 30 percent from last year's record of 24,600 tons, but still 29 percent above 1984. The Oregon crop is estimated at 17,000 tons, 30 percent below last year, while the Washington crop, at 300 tons, remained unchanged from 1985.

Weather during the season has been generally good for filbert development. The nuts have sized well and appear to be good quality. The early, hot summer advanced the crop as much as 2 weeks ahead of normal, and an early drop was reported to be somewhat heavier than normal. Nut set was lighter than last year's exceptional crop. Clusters appear to be smaller with more singles and doubles. However, as in the past several years, the number of trees has increased, partially counterbalancing reduced production per tree.

Grower prices for the 1986 crop have not been established. However, the smaller size of the crop combined with reduced supplies of almonds and walnuts, is expected to strengthen filbert prices. In 1985, the U.S. average grower price was \$680 a ton, up 10 percent from 1984.

FORECASTING CALIFORNIA-ARIZONA
NAVEL AND VALENCIA ORANGE PRICES
by
Nicholas J. Powers*

ABSTRACT: As shipments of navels into the fresh domestic market increase, the price for fresh navels decreases. Likewise, increased shipments of either navels or Valencias into the fresh domestic market decrease the price for fresh Valencias. An increase in the Florida orange crop tends to decrease the price for both fresh navels and Valencias. Because these California-Arizona (C-A) oranges constitute a minor share of all oranges processed, increased shipments of navels or Valencias into processing tend not to affect the price for processing navels and Valencias. In this article four equations describe how supply and demand affect grower prices and revenue for C-A navels and Valencias.

Key words: California-Arizona navel and Valencia oranges, forecasting, grower prices, and revenue.

The annual grower values of California-Arizona (C-A) navel and Valencia orange crops averaged about \$150 and \$122 million, respectively, from 1980/81 to 1984/85. While representing only about 27 percent of total orange production, C-A navels and Valencias supplied nearly 77 percent of the oranges entering fresh use and about 11 percent of the oranges entering processing during this period. The remaining fresh oranges were mostly from Florida and Texas. C-A oranges are preferred by consumers over other fresh oranges because they are easy to peel and have relatively low juice content. But the low juice content makes C-A oranges poor for processing. The processing orange market is dominated by Florida.

This article describes factors affecting grower prices for C-A navels and Valencias and reports quantitative estimates of four price equations. These equations can be used to predict grower prices and revenue for C-A navels and Valencias.

The price equations should be of particular interest to the industry and policymakers. Under Federal marketing orders no. 907 and 908, the administrative committees for C-A navels and Valencias

submit a marketing policy for USDA review at the onset of each marketing season. The policy proposes allocation of the crop to the fresh domestic, export, and processing markets. The policy is evaluated partially on how the proposed allocation may affect grower prices and revenues. Thus, the following price equations provide a tool for evaluating policy alternatives.

Background

Uses

Typically marketed from early November through June, C-A navels compete principally with Florida's early, midseason, and navel crops and Texas' crop. C-A Valencias are marketed from February through December and compete principally with the Florida Valencia crop.

There are three major uses for C-A navels and Valencias: fresh domestic (U.S. and Canada), fresh exports, and processing. Since 1980/81, 65 percent of the navel crop has entered fresh domestic use, 9 percent has been exported, and 24 percent has been processed. Similarly, 41 percent of the Valencia crop has entered fresh domestic use, 23 percent has been exported, and 35 percent has been processed. The remaining 2 percent of navels and 1 percent of Valencias enter other uses.

Prices

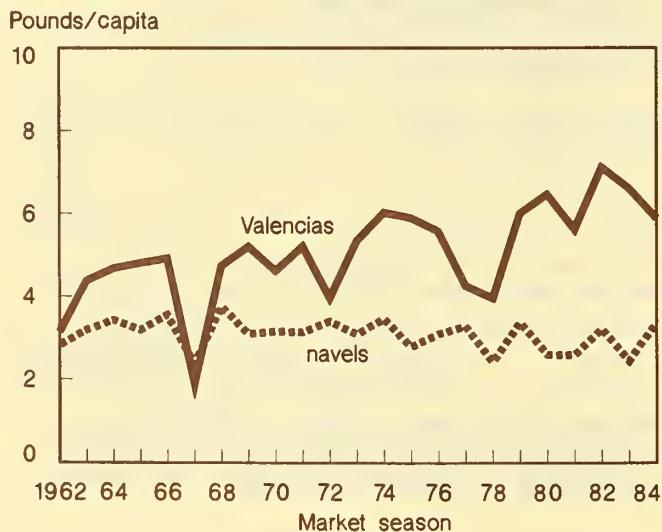
Prices for fresh C-A navels and Valencias are determined mainly in the domestic

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market, with export prices following. Prices are affected by shipment levels to the fresh domestic market, availability of substitute commodities, consumer income, and population.

Per capita domestic shipments of fresh C-A navels have increased from 3 pounds in 1962/63 to 7 in 1982/83 (figure 1). Per capita domestic shipments of fresh C-A Valencias have remained at nearly 3 pounds.

Figure 1
Per Capita Fresh Domestic Shipments of California-Arizona Navel and Valencias



Major substitutes for fresh C-A navels and valencias are Florida oranges and fresh apples, grapefruit, and bananas. Per capita consumption of concentrated orange juice and fresh bananas has increased, while consumption of fresh apples and grapefruit has decreased slightly over time. Greater consumption of substitute commodities decreases prices for fresh C-A navels and Valencias. Increased per capita disposable income increases the quantity demanded of fresh C-A oranges, and thus their prices.

The price for fresh C-A oranges is also affected by within-season changes in the crop size of C-A and Florida oranges due to an unforeseen event such as a freeze. For example, a reduction of the Florida orange crop from the early-season estimate increases prices for fresh C-A oranges. The price for fresh C-A Valencias is also affected by the domestic shipment levels of fresh C-A navels. Greater shipments of fresh C-A navels depress prices for fresh Valencias.

Prices for processing oranges are determined mainly by Florida orange supplies and imports of frozen concentrated orange juice from Brazil. Adjusted for quality factors and lower juice yields, the price for processing C-A oranges equals the price for processing Florida oranges. Juice from processing C-A oranges is blended with other fruit juices (not orange juice). Thus, the effect of income on the prices for processing C-A oranges may be different than on the price for processing Florida oranges, since the blended juices often sell for less than FCOJ.

Price Equations

To quantify the impact of these factors on orange prices, ordinary least squares (OLS) procedures were used to estimate four price equations for C-A oranges.^{1/}

Fresh Navel and Valencias

Based on the preceding discussion, the annual grower price for fresh C-A navels was specified as a function of shipments of fresh navel oranges (the United States and Canada), production or consumption of substitute commodities (Florida and Texas oranges, grapefruit, bananas, and apples), disposable income, and unexpected changes in the crop sizes for Florida and C-A navel oranges. The annual grower price for fresh C-A Valencias was specified as a function of domestic shipments of C-A fresh Valencias, domestic shipments of C-A fresh navels, production or consumption of substitute commodities, disposable income, and unexpected changes in the C-A Valencia crop. To remove the effects of inflation, orange prices and disposable income were deflated by the Consumer Price Index, 1967=100. To minimize the undesirable statistical effects of high correlation between population and other variables, shipments, production, consumption, and disposable income were expressed on a per capita basis.

^{1/} Semilogarithmic functional forms were used for the price equations for fresh C-A navels and Valencias since they are flexible and provided higher predictive ability than others. The price equation for fresh Valencias was corrected for first-order auto correlation. Linear functional forms were used for the price equations for processing C-A navels and Valencias. Annual data were for 1962/63 to 1982/83.

Preliminary analysis revealed that the effects of per capita consumption of fresh grapefruit, bananas, and apples; per capita production of Texas oranges; disposable income; and unexpected changes in the C-A navel and Valencia orange crop sizes on the prices for fresh navels and Valencias were not significantly different from zero. These variables were excluded from the final equations.

The estimated coefficients and the corresponding standard errors for the independent variables in the price equations for fresh C-A navels and Valencias are:

$$(1) \text{CAFNP} = 5.77 - 1.63 \text{CAFNS} - 0.45 \text{FTS} + 0.60 \text{FTOCT}$$

$$(0.45)^* \quad (0.12)^* \quad (0.12)^* \quad (0.25)^* \quad 2/$$

$$R^2 = 0.95 \quad DW = 1.89$$

$$3/ \text{MAPE} = 7.9 \quad 4/ \text{SE} = 0.14$$

$$(2) \text{CAFVP} = 7.35 - 0.93 \text{CAFVS} - 0.92 \text{FTS} - 0.81 \text{CAFNS}$$

$$(0.44)^* \quad (0.43)^* \quad (0.15)^* \quad (0.18)^*$$

$$R^2 = 0.85 \quad DW = 2.00$$

$$\text{MAPE} = 13.7 \quad \text{SE} = 0.22$$

2/ An asterisk (*) by the standard error indicates that the estimated coefficient for the independent variable is significantly different from zero at the 5-percent level.

3/ The mean absolute percent error (MAPE) is a measure of the predictive ability of the equations. MAPE measures the error or the predicted price from the actual price as a percent of the actual price. MAPE is calculated as follows:

$$\text{MAPE} = \sum (|(\text{AP}_t - \text{PP}_t) / \text{AP}_t| * 100\%) / N.$$

Where: AP = actual price,

PP = predicted price,

t = marketing season.

4/ The standard error of regression (SE) is a measure of the dispersion of the predicted price about the actual price. SE is in the same units of measurement as prices. SE for a sample is computed as:

$$\text{SE} = (\sum (\text{AP}_t - \text{PP}_t)^2 / (N - K - 1))^{1/2}$$

Where: N = number of observations,
K = number of independent (explanatory) variables.

Definition of variables:

CAFNP = The seasonal weighted average estimated on-tree price for C-A fresh navels (deflated by the Consumer Price Index for all goods, 1967 = 100, \$/carton, carton = 37 1/2 lbs.).

CAFVP = The seasonal weighted average estimated on-tree price for C-A fresh Valencia oranges (deflated by the Consumer Price Index for all goods, 1967 = 100, \$/carton).

CAFNS = The natural logarithm of per capita domestic shipments of C-A fresh navel oranges, including the population of the U.S. and Canada (fresh farm-level weight, lbs./capita).

CAFVS = The natural logarithm of per capita domestic shipments of C-A fresh Valencias, including the population of the U.S. and Canada (fresh farm-level weight, lbs./capita).

FTS = The natural logarithm of per capita production of all Florida oranges, including the population of the U.S. and Canada (fresh farm-level weight, lbs./capita).

FTOCT = The natural logarithm of the ratio of the preseason (October) USDA estimate of Florida orange crop size to actual crop size.

The value of the Durbin-Watson test statistic indicates the absence of a first-order auto correlation process among the residual terms. The estimated coefficient for each independent variable is significantly different from zero at the 5-percent level.

The negative coefficient for per capita domestic shipments of fresh navels means that fresh navel orange prices fall with increased supplies to the fresh domestic market. Likewise, the negative coefficient for per capita Florida orange production means that increased supplies of Florida oranges decrease the price for fresh C-A Valencias. Larger per capita domestic shipments of C-A fresh navels also decrease the price for C-A fresh Valencias.

Figure 2
Actual, Predicted, and Projected Grower Prices (Deflated) for Fresh C-A Navels

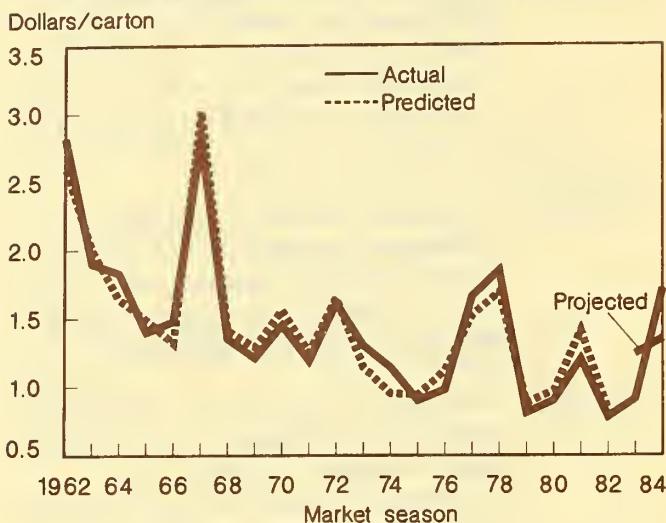
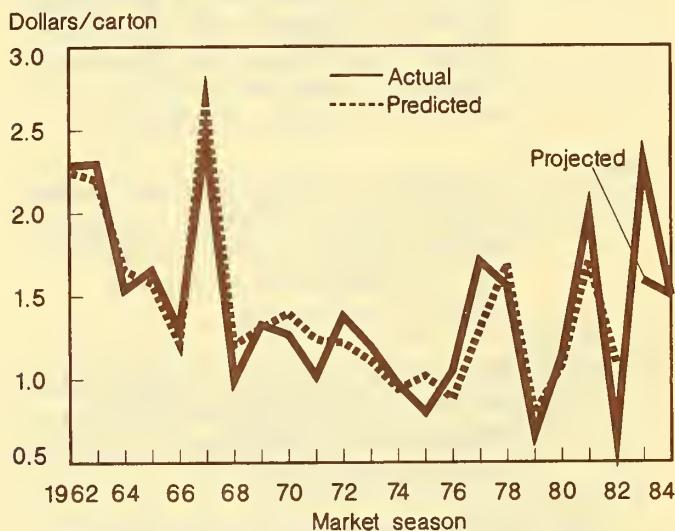


Figure 3
Actual, Predicted, and Projected Grower Prices (Deflated) for Fresh C-A Valencias



The predicted fresh prices follow actual fresh prices closely (figures 2 and 3). For the fresh prices, the mean absolute percent error (MAPE) is relatively small for both equations. The price equation for fresh navels correctly predicted 9 of 11 turning points.^{5/} But, it also

predicted 3 turning points that did not occur, and it did not predict 1 turning point that did occur. The price equation for fresh Valencias correctly predicted 5 of 14 turning points. But, it predicted 4 turning points that did not occur, and it failed to predict 7 turning points that did occur. The price equations appear to track actual prices more closely for the earlier seasons than for the later. In part, this may be due to the cumulative effect of severe freeze damage to Florida orange crops in recent seasons and to increased imports of Brazilian processed orange juice. These fundamental market changes may affect the predictive ability of the price equations.

Projections of fresh navel and Valencia orange prices were made with the equations for the 1983/84 and 1984/85 seasons. The equations correctly predicted all four turning points. The predicted price for fresh navels during the small-supply season of 1984/85 was slightly less than the actual, as was the predicted price for fresh Valencias during the small-supply season of 1983/84.

Processing Navels and Valencias

Annual prices for C-A processing navels and Valencias were specified as functions of the price for Florida processing oranges, disposable income in the United States and Canada, shipments of C-A processing navels and Valencias, and unexpected changes in crop sizes for Florida oranges and C-A navels and Valencias during the season. Prices and income were expressed in real terms and disposable income and shipments were expressed per capita.

Given the minor role of C-A oranges in processing, the price of C-A processing navels and Valencias is primarily determined in the Florida and Brazilian orange juice markets, again with a discount for C-A oranges' lower juice content.

Shipments of processing C-A navels and Valencias and unexpected changes in the crop size of C-A navels and Valencias and Florida oranges were found not to significantly affect the price for C-A processing navels or Valencias.

^{5/} A change in the direction of price movements from season to season constitutes a turning point. An example of a turning point would be an increase in the price during a season from the previous season's price followed by a decrease in the next season's price.

Estimated coefficients and standard errors for the independent variables in the price equations for C-A processing navels and Valencias are:

$$(3) \text{CAPNP} = 0.91 + 0.17*\text{FTPP} - 0.014*\text{CAPNS} - 0.41*\text{INC}$$

(0.16)* (0.017)* (0.018) (0.05)*

$R^2 = 0.95$ DW = 2.12

MAPE = 42.0 SE = 0.06

$$(4) \text{CAPVP} = 1.70 + 0.28*\text{FTPP} - 0.02*\text{CAPVS} - 0.60*\text{INC}$$

(0.25) (0.02)* (0.02) (0.07)*

$R^2 = 0.96$ DW = 2.21

MAPE = 93.4 SE = 0.09

Definition of variables:

CAPNP = Seasonal weighted average estimated on-tree price for C-A processing navels (deflated by the Consumer Price Index for all goods, 1967 = 100, \$/carton).

CAPVP = Seasonal weighted average estimated on-tree price for C-A processing Valencias (deflated by the Consumer Price Index for all goods, 1967 = 100, \$/carton).

FTPP = Seasonal weighted average estimated on-tree price for Florida processing oranges (deflated by the Consumer Price Index for all goods, 1967 = 100, \$/box, box = 90 lbs.).

CAPNS = Per capita shipments of C-A processing navels including the population of the U.S. and Canada (fresh farm-level weight, lbs./capita).

CAPVS = Per capita shipments of C-A processing Valencias including the population of the U.S. and Canada (fresh farm-level weight, lbs./capita).

INC = Per capita disposable income for the U.S. and Canada. Canadian income adjusted by U.S.-Canadian exchange rate (deflated by the Consumer Price Index for all goods, 1967 = 100, \$1,000 per capita).

The value of the Durbin-Watson test statistic indicates the absence of a first-order autocorrelation process among the residual terms.

As indicated by the estimated coefficient for price of Florida processing oranges, a \$1.00-per-box increase in the real price for Florida processing oranges increases the real price for C-A processing navels by \$0.17 per carton and that for processing Valencias by \$0.28.

The effect of changes in the per capita shipments of processing navels and Valencias on processing prices is inconsequential. A \$100 increase in per capita real disposable income decreases the real price for C-A processing navels by about \$0.04 per carton and that for C-A Valencias by about \$0.06 per carton. As income increases, consumers may substitute juice drinks blended with C-A processed navels or Valencias for some Florida frozen concentrated orange juice. Yet the negative impact of income may also be caused by spurious correlation between income and marketing margins. Over time, as income increased on-tree processing prices decreased because of increased marketing margins. Thus, the income variable may be spuriously measuring the impact of changing marketing margins on price.

The predicted processing prices follow actual processing prices closely (figures 4 and 5). The mean absolute percent errors are larger for both processing price equations than for the fresh-price equations because processing prices are much smaller. The price equation for processing navels correctly predicted 6 of 9 turning points. But, it also predicted 5 turning points that did not occur, and it did not predict 1 turning point that did occur. The equation for processing Valencia prices correctly predicted 5 of 14 turning points. But, it also predicted 2 turning points that did not occur, and it failed to predict 6 turning points that did occur.

Projections of processing navel and Valencia orange prices were made using the equations for the 1983/84 and 1984/85 seasons. The equations correctly predicted all 4 turning points and, except for the small-crop season of 1984/85, predicted prices nearly equaled the actual.

Figure 4
Actual, Predicted, and Projected Grower Prices (Deflated) for Processing C-A Navels

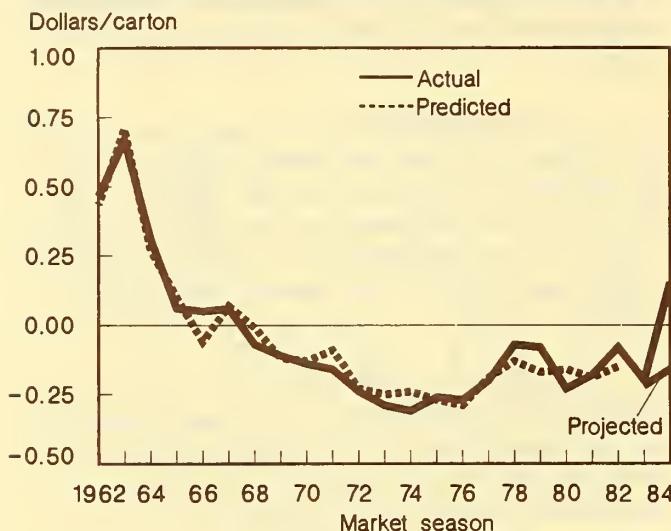
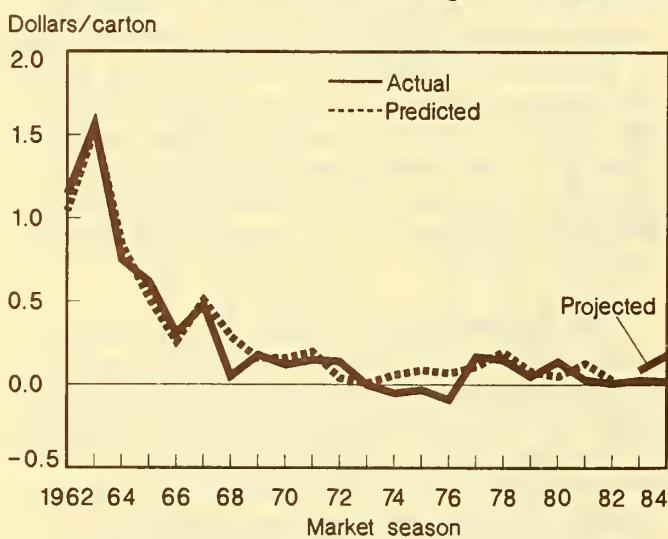


Figure 5
Actual, Predicted, and Projected Grower Prices (Deflated) for Processing C-A Valencias



Forecasting Grower Prices And Incomes: An Example

The following example illustrates how the price equations can be used to generate grower price and revenue forecasts. Prices are generated by inserting values for the independent (explanatory) variables into the equations. Grower revenue is calculated by multiplying the fresh price by the fresh shipments and adding to it the product of processing prices and processing shipments.

Navels

Suppose the C-A navel orange crop is estimated at 60 million cartons. The industry expects to ship 65 percent of the crop to the fresh domestic market, 8 percent to fresh exports, 25 percent to processing, and the remaining 2 percent to other uses.^{6/} Assume that the Florida orange crop is estimated at 110 million boxes and no freezes are expected. Given U.S. and Canadian population of 260 million, per capita domestic shipment of fresh navels is 6.09 pounds and per capita production of Florida oranges is 38.08 pounds. The natural logarithm values for these two per capita variables are substituted into the equation for fresh navels. The predicted real price for fresh navels is \$1.18 per carton. The predicted nominal price is \$3.86 per carton assuming the Consumer Price Index is 325 percent.

Suppose the nominal price for Florida processing oranges is expected to be about \$7.00 per box, which equals \$2.15 in real terms. Per capita shipment of processing navels is about 2.34 pounds. And, real per capita disposable income is \$3,600. These values are inserted into the price equation for processing navels. The predicted nominal price for processing navels is about \$0.54 per carton.

Prices for navels in the fresh export market are nearly comparable to those in the fresh domestic market. Thus, predicted nominal grower income from the fresh markets is about \$183.15 million and from the processing market is a negative \$8.77 million. Predicted total grower income is about \$174.38 million.

A 1-percent increase in shipments to the fresh domestic market from processing decreases the price for fresh navels by about 1.38 percent and lowers total grower revenue by about 0.36 percent.^{7/} A 1-percent decrease in shipments to the fresh domestic

^{6/} Processing is products and does not include other use.

^{7/} The price flexibility for this semilogarithmic functional form is:

PF = $+b/+PP$ shipments of fresh navels or Valencias,
PP = predicted price.

market from processing increases the price for fresh navels by about 1.38 percent, boosting total grower revenue by about 0.25 percent.

Valencias

Suppose the C-A Valencia orange crop is estimated at 60 million cartons. The industry expects to ship 43 percent of the crop to the fresh domestic market, 25 percent to fresh exports, 30 percent to processing, and the remaining 2 percent to other uses. Per capita domestic shipment of fresh Valencias is 3.72 pounds and of processing valencias 2.60 pounds.

The predicted nominal price for fresh Valencias is \$4.28 per carton and for processing Valencias \$0.30. Prices for fresh Valencias in the export market are comparable to those in the fresh domestic market. Thus, predicted nominal grower income from the fresh market is \$174.45 million and from processing \$5.33 million. Predicted total grower income is \$179.78 million.

A 1-percent increase in shipments to the fresh domestic market from processing decreases the price for fresh Valencias by 0.71 percent and total grower revenue by about 0.1 percent.^{7/} A 1-percent decrease raises the prices for fresh Valencias by 0.71 percent and total grower revenue by about 0.1 percent.

Conclusions

The price equations for navels and Valencias are analytical tools that may need retuning from time to time. The projected prices are accurate to the extent that the supply and demand conditions and the market structure do not change. As the orange market changes the price equation will undoubtedly change too. Thus, to help improve the predictive ability of the equations, they should be re-estimated as new observations become available.

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Table 9.--Tree nuts: Production, 1984, 1985, and indicated 1986

Crop and State	1984	1985	1986
1,000 lbs. (kernel weight)			
Almonds: California	590,000	465,000	265,000
Tons (in-shell)			
Walnuts, English: California	213,000	219,000	195,000
Pecans: United States	116,200	122,200	N.A.
Filberts: United States	13,400	24,600	N.A.

N.A.=not available.

SOURCE: Crop Production, NASS, USDA.

Table 11.--Wine: Inventories in California, other States, and United States 1/

Area and type of wine	as of May 28		
	1986 3/	1985 4/	1984 4/
1,000 gallons			
California:			
Table	383,537	394,943	410,827
Dessert	35,559	36,242	39,666
Other	30,230	34,443	21,599
Total	449,326	465,628	472,092
Other States:			
Table	29,765	44,784	35,985
Dessert	8,499	9,141	9,372
Other	6,605	2,722	4,925
Total	44,869	51,203	50,282
United States 2/:			
Table	413,302	439,727	446,811
Dessert	44,058	45,383	49,038
Other	36,835	31,721	26,525
Total	494,195	516,831	522,374

1/ Inventories in bonded wineries and wine cellars. Excludes substandard wine produced as distilling material. 2/ Sum of components is not equal to total in all cases because of rounding individual figures. 3/ Preliminary.

4/ Sum of figures for California and Other States may not equal U.S. totals because U.S. totals are revised figures, which are not available for individual States.

SOURCE: Wine Institute's Economic Research Department from reports of the Bureau of Alcohol, Tobacco, and Firearms.

Table 10.--Tree nuts in cold storage, June 30, 1984-86

Kinds	1984	1985	1986
	Million pounds		
Almonds:			
In-shell	1.4	5.9	5.1
Nutmeats	42.1	145.8	135.0
English walnuts:			
In-shell	39.9	19.0	32.8
Nutmeats	17.5	19.7	20.0
Filberts:			
In-shell	.4	.4	.7
Nutmeats	1.4	1.7	3.2
Pecans:			
In-shell	75.8	45.8	52.6
Nutmeats	35.6	28.8	35.8
Other tree nuts:			
In-shell	1.4	2.0	2.4
Nutmeats	10.1	10.4	10.7
Total:			
In-shell	118.9	73.1	93.6
Nutmeats	106.7	206.4	204.7

SOURCE: Cold Storage, NASS, USDA.

Table 12.—Strawberries: Acreage, yield per acre, and production for major States, 1984, 1985, and indicated 1986 1/

Crop and State	Acreage			Yield per acre			Production		
	1984	1985	1986	1984	1985	1986	1984	1985	1986
	1,000 acres			1,000 pounds			Million pounds		
Early:									
Florida	5.1	5.3	4.9	17.0	20.0	18.0	86.7	106.0	88.2
Late:									
California	14.1	14.6	15.1	53.5	53.0	52.0	754.4	773.8	785.2
Michigan	2.7	2.5	2.5	7.0	6.5	6.3	18.9	16.3	15.8
New Jersey	1.0	1.1	1.0	5.0	5.5	5.0	5.0	6.1	5.0
Oregon	6.6	6.8	7.3	9.2	7.4	8.5	60.7	50.3	62.1
Washington	3.0	3.0	3.0	7.0	7.1	7.0	21.0	21.3	21.0
Group total	27.4	28.0	28.9	31.4	31.0	30.8	860.0	867.8	889.1
Major State total	32.5	33.3	33.8	29.1	29.2	28.9	946.7	973.8	977.3

1/ Includes fresh market and processing.

SOURCE: Vegetables, NASS, USDA.

Table 13.—Wine entering U.S. distribution channels by origin and type 1/

Origin and type of wine	January-May			Calendar year		
	1986 2/	1985	1984	1985 2/	1984	1983
1,000 gallons						
U.S. produced: 3/						
Table	113,886	107,074	117,816	265,336	282,602	290,747
Dessert	14,032	12,938	14,447	30,778	34,686	34,131
Other	64,896	47,829	29,402	144,920	79,782	87,221
Total	192,814	167,841	161,665	441,034	397,070	412,099
Imported: 4/						
Table	35,444	44,018	45,074	111,991	118,722	111,392
Dessert	1,248	1,264	1,408	3,509	3,607	3,393
Other	6,884	7,277	7,057	21,204	20,082	16,221
Total	43,576	52,559	53,539	136,704	142,411	131,006
All wine:						
Table	149,330	151,092	162,890	377,327	401,324	402,139
Dessert	15,280	14,202	15,855	34,287	37,738	38,079
Other	71,780	55,106	36,459	166,124	115,448	87,858
Total	236,390	220,400	215,204	577,738	554,510	528,076

1/ Due to rounding, totals may not equal sum of components. 2/ Preliminary. 3/ Includes taxable withdrawals only. 4/ Imports for consumption. 5/ Appears to be overstated. Wine Institute has requested that ATF verify the accuracy of figures reported for this category.

SOURCE: Wine Institute's Economic Research Department from reports of the Bureau of Alcohol, Tobacco, and Firearms.

Table 14.--Canned noncitrus fruit: Canners' stocks, packs, supplies, and shipments, 1983/84-1985/86

Item and season 1/	Carryin	Pack	Total supply	Season shipments	June 1 stocks
1,000 equivalent cases 24 No. 2-1/2's					
Total:					
1983/84	12,943	28,625	41,568	36,531	5,037
1984/85	5,037	39,382	44,419	35,710	8,709
1985/86	8,709	39,264	47,973	34,904	13,069
Apricots 2/:					
1983/84	219	1,167	1,386	1,263	123
1984/85	123	1,861	1,984	1,440	544
1985/86	544	1,532	2,076	1,712	364
Fruit cocktail 2/:					
1983/84	2,948	8,223	11,171	9,272	1,899
1984/85	1,899	8,671	10,570	8,912	1,658
1985/86	1,658	10,058	11,716	8,743	2,973
Fruits for salad & mixed 2/:					
1983/84	876	1,335	2,211	1,899	312
1984/85	312	2,506	2,818	2,147	671
1985/86	671	2,509	3,180	2,114	1,066
Peaches, clingstone 2/:					
1983/84	5,573	10,686	16,259	15,119	1,140
1984/85	1,140	18,687	19,827	15,636	4,191
1985/86	4,191	17,352	21,543	15,895	5,648
Pears:					
1983/84	3,327	7,214	10,541	8,978	1,563
1984/85	1,563	7,657	9,220	7,575	1,645
1985/86	1,645	7,813	9,458	6,440	3,018

1/Season begins June 1. 2/ California only.

SOURCE: California League of Food Processors and Northwest Food Processors Association.

Table 15.--Canned cherries and purple plums: Canners' stocks, packs, supplies, and shipments, 1983/84-1985/86

Item and season 1/	Carryin	Pack	Total supply	Shipments to April 1	Stocks, from April 1	Shipments from April 1	Total season shipments
1,000 equivalent cases 24 No. 2-1/2's							
Total:							
1983/84	441	1,154	1,595	1,100	495	193	1,293
1984/85	302	1,323	1,625	1,033	592	184	1,217
1985/86	408	1,437	1,845	1,085	760		
Cherries, RSP:							
1983/84	42	189	231	207	24	17	224
1984/85	7	389	396	259	137	44	303
1985/86	93	390	483	343	139		
Cherries, sweet:							
1983/84	168	522	690	403	287	87	489
1984/85	200	357	557	359	198	67	426
1985/86	131	405	536	311	225		
Purple plums, U.S.:							
1983/84	231	443	674	490	184	89	579
1984/85	95	577	672	415	257	73	488
1985/86	184	642	826	431	395		

1/ Season beginning July 1 for RSP cherries and June 1 for all other items.

SOURCE: National Food Processors Association.

Table 16.—Canned fruit: Commercial pack of principal items by size of container, United States, 1983/84-1985/86 (basis equivalent cases of 24 No. 2-1/2 cans)

Item and season 1/ 	Retail size 2/ Percent of pack		Institutional size No. 10 Percent of pack		Total pack	Item and season 1/ 	Retail size 2/ Percent of pack		Institutional size No. 10 Percent of pack		Total pack			
	1,000 cases		1,000 cases				1,000 cases		1,000 cases					
	Quantity	Percent	Quantity	Percent			Quantity	Percent	Quantity	Percent				
Fruit for salad and mixed 3/:														
Apricots:	692	59.3	475	40.7	1,167	780	58.4	555	41.6	1,335				
1983/84	1,151	61.8	710	38.2	1,861	1,549	61.8	957	38.2	2,506				
1984/85					1,532	1,456	58.0	1,053	42.0	2,509				
1985/86	742	48.4	790	51.6										
Cherries, RSP:	137	72.5	52	27.5	189	7,057	66.0	3,629	34.0	10,686				
1983/84	230	59.1	159	40.9	389	12,125	64.9	6,262	35.1	18,687				
1984/85			141	36.2	390	11,096	63.9	6,256	36.1	17,352				
1985/86	249	63.8												
Cherries, sweet:	362	69.3	160	30.7	522	4,241	58.8	2,973	41.2	7,214				
1983/84	233	65.3	124	34.7	357	4,531	59.2	3,126	40.8	7,657				
1984/85			178	44.0	405	4,485	57.4	3,328	42.6	7,813				
1985/86	227	56.0												
Fruit cocktail 3/:	6,217	75.6	2,006	24.4	8,223	196	44.2	247	55.8	443				
1983/84	6,476	74.7	2,195	25.3	8,671	266	46.1	311	53.9	577				
1984/85			3,208	31.9	10,058	250	38.9	392	61.1	642				
1985/86	6,850	68.1												

1/ Season beginning July 1 for RSP cherries and June 1 for all other items. 2/ May include some institutional sizes reported as miscellaneous.
3/ California only.

SOURCES: National Food Processors Association and California League of Food Processors.

Table 17.--Frozen fruit: Packers' carryin, pack, imports, supplies, apparent disappearance, and stocks of selected items, United States, 1983/84-1985/86

Item and season 1/	Carryin	Pack	Imports	Total supply	Disappear- ance to Mar. 31	Stocks Mar. 31	Total season disappearance
Million pounds							
Total:							
1983/84	193.0	537.6	62.7	793.3	467.7	325.6	555.9
1984/85	237.4	504.3	78.6	820.3	516.1	304.2	608.5
1985/86	211.8	491.6	78.3	781.7	490.1	291.6	
Apples:							
1983/84	36.9	75.6	--	112.5	31.1	81.4	81.3
1984/85	31.2	78.0	--	109.2	45.6	63.6	77.2
1985/86	32.0	85.5	--	117.5	43.0	74.5	
Apricots:							
1983/84	3.6	14.1	--	17.7	12.5	5.2	13.9
1984/85	3.8	16.7	--	20.5	14.1	6.4	15.8
1985/86	4.7	11.8	--	16.5	12.0	4.5	
Cherries, sweet:							
1983/84	4.9	17.3	--	22.2	12.7	9.5	16.1
1984/85	6.1	13.3	--	19.4	8.5	10.9	12.8
1985/86	6.6	10.3	--	16.9	5.8	11.1	
Peaches:							
1983/84	22.3	56.5	--	78.8	51.7	27.1	65.1
1984/85	13.7	75.9	--	89.6	50.0	39.6	71.0
1985/86	18.6	70.3	--	88.9	63.4	25.5	
Strawberries:							
1983/84	86.9	292.6	44.6	424.1	286.5	137.6	290.9
1984/85	133.2	231.4	61.4	426.0	306.5	119.5	313.6
1985/86	112.4	229.1	53.6	395.1	284.9	110.2	
Blackberries:							
1983/84	8.1	14.6	--	22.7	15.6	7.1	18.1
1984/85	4.6	11.1	--	15.7	7.3	8.4	10.7
1985/86	5.0	12.7	--	17.7	8.4	9.3	
Blueberries:							
1983/84	9.3	43.5	11.2	64.0	21.0	43.0	30.2
1984/85	33.8	54.8	11.1	99.7	64.6	35.1	79.6
1985/86	20.1	54.5	10.9	85.5	47.6	37.9	
Boysenberries:							
1983/84	2.2	3.5	2.7	8.4	7.3	1.1	7.4
1984/85	1.0	3.5	2.8	7.3	5.2	2.1	5.6
1985/86	1.7	2.6	4.3	8.6	5.8	2.8	
Raspberries:							
1983/84	18.8	19.9	4.2	42.9	29.3	13.6	32.9
1984/85	10.0	19.6	3.3	32.9	14.3	18.6	22.2
1985/86	10.7	14.8	9.5	35.0	19.2	15.8	

1/ Season beginning May 1 for strawberries, June 1 for apricots and boysenberries, October 1 for apples, and July 1 for all other items.

SOURCES: Pack data from American Frozen Food Institute; stocks, National Agricultural Statistics Service USDA; imports, Bureau of Census, U.S. Department of Commerce.

Table 18.—U.S. Producer Price Indexes of selected dried and frozen juice items, by months, 1984-86

Year	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
1967=100												
Dried fruit:												
Prunes (24-1 lb. pkg.):	281.7	281.7	284.1	284.1	284.1	284.1	284.1	284.1	288.0	292.7	292.7	292.7
1984	292.7	283.2	283.2	285.2	290.1	290.1	290.1	290.1	280.6	286.4	N.P.	286.4
1985	286.4	286.4	286.4	286.4	286.4	286.4	286.4	286.4				
Raisins (24-15 oz. pkg.):	425.2	425.7	423.6	423.6	411.5	411.5	411.5	411.5	307.5	316.2	321.1	321.1
1984	313.9	314.1	314.1	314.1	321.7	N.P.	N.P.	N.P.	N.P.	350.3	N.P.	350.3
1985	341.5	341.5	341.5	341.5	N.P.	N.P.	N.P.	N.P.				
Frozen juice:												
Orange, conc. (12-6 oz. cans):	316.4	361.6	373.3	380.3	385.2	395.0	387.6	392.4	403.7	410.2	408.3	407.8
1984	400.8	419.1	419.4	418.3	420.2	416.9	410.7	396.7	390.1	375.7	365.6	355.1
1985	328.5	324.6	307.2	300.8	300.1	300.7	300.5					

N.P. = Not published.

SOURCE: Bureau of Labor Statistics, U.S. Department of Labor.

Table 19.—Fresh fruit: Retail price, marketing margin, and grower-packer return per pound, sold in Baltimore, indicated months, 1985 and 1986

Commodity and season	Retail price 1/	Marketing margin		Grower-packer return 2/3/ (f.o.b. shipping point price)	
		Absolute	Percent of retail price	Absolute	Percent of retail price
		Cents/lb.	Percent	Cents/lb.	Percent
Apples, Appalachia Eastern					
Delicious:					
April 1985	43.0	17.6	41	25.4	59
April 1986	51.3	25.3	49	26.0	51
March 1986	51.3	21.6	42	29.7	58
Apples, Washington, red					
Delicious:					
May 1985	65.0	24.1	37	40.9	63
May 1986	89.0	45.7	51	43.3	49
April 1986	70.0	32.9	47	37.1	53
Grapefruit, Florida:					
April 1985	32.9	21.9	67	11.0	33
April 1986	28.2	15.3	54	12.9	46
March 1986	31.1	18.8	60	12.3	40
Lemons, California:					
May 1985	83.2	54.4	65	28.8	35
May 1986	89.6	64.8	72	24.8	28
April 1986	107.0	82.4	77	24.6	23
Oranges, California navel:					
May 1985	52.5	21.7	41	30.8	59
May 1986	42.6	25.3	59	17.3	41
April 1986	52.3	34.9	67	17.4	33
Oranges, Florida:					
May 1985	48.4	30.5	63	17.9	37
May 1986	46.5	35.4	76	11.1	24
April 1986	40.6	29.3	72	11.3	28

1/ Retail price from Maryland State Department of Agriculture. 2/ 1985 grower-packer returns revised.

3/ Adjusted to account for waste and spoilage incurred during marketing.

Table 20.—Fresh fruit: Representative truck rates for selected fruits, January-June, 1985-86 1/

Commodity, area, and city	1985						1986					
	Jan.	Feb.	Mar.	Apr.	May	June	Jan.	Feb.	Mar.	Apr.	May	June
Dollars per package												
Apples (tray packed carton)												
Yakima, Washington area to:												
Atlanta	2.80	2.80	2.78	2.85	2.85	2.85	2.80	2.80	2.80	2.80	2.80	2.80
Chicago	2.15	2.10	2.05	2.10	2.10	2.10	2.10	2.10	2.05	2.13	2.13	2.13
Dallas	2.15	2.25	2.25	2.33	2.33	2.33	—	—	—	2.28	2.28	2.28
Denver	1.50	1.50	1.45	1.45	1.45	—	1.50	1.50	1.50	1.55	1.55	1.55
Los Angeles	1.40	1.40	1.40	1.40	1.40	1.40	1.45	1.45	1.45	1.55	1.55	1.55
New York City	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20	3.20
Hudson Valley, New York area to:												
New York City	.53	.53	.53	.53	.53	—	.55	.55	.55	.55	.55	—
Martinsburg, West Virginia area to:												
Atlanta	.93	.93	.93	.93	.93	—	.93	.93	.93	.93	—	—
New York City	.83	.83	.83	.78	—	—	.80	.80	.80	.80	—	—
Grapefruit (4/5 bu. ctn.)												
Lakeland, Florida area to:												
Atlanta	.58	.53	.53	.55	.63	—	.59	.58	.58	.60	.69	.68
Chicago	1.28	1.20	1.20	1.30	1.55	—	1.25	1.20	1.18	1.33	1.55	1.50
New York City	1.28	1.20	1.20	1.30	1.58	—	1.25	1.22	1.18	1.33	1.55	1.50
Grapes (23 lb. lug)												
Fresno area to:												
Atlanta	1.26	1.41	1.44	1.41	1.53	1.65	1.18	1.15	1.41	1.29	1.29	1.65
Chicago	1.06	1.06	1.06	1.12	1.24	1.59	1.15	1.15	1.29	1.26	1.26	1.56
Dallas	.94	1.00	1.00	1.03	1.06	1.15	.85	.97	.97	.91	.97	1.18
New York City	1.56	1.59	1.65	1.65	1.71	2.18	1.65	1.71	1.71	1.76	1.79	2.29
Citrus (7/10 bu. ctn.)												
Southern California area to:												
Atlanta	1.95	2.10	2.00	1.95	2.05	2.65	2.15	2.05	2.15	2.15	2.30	2.78
Chicago	1.95	2.00	2.00	1.85	1.95	2.20	1.90	2.00	1.95	2.00	2.15	2.40
Dallas	1.35	1.55	1.63	1.60	1.60	1.69	1.60	1.65	1.60	1.60	1.70	1.85
Denver	1.25	1.15	1.15	1.15	1.20	1.25	1.15	1.20	1.10	1.10	1.35	1.80
New York City	2.55	2.80	2.85	2.80	2.90	3.50	2.70	2.90	2.85	2.85	3.05	3.80
Oranges (4/5 bu. ctn.)												
Lakeland, Florida area to:												
Atlanta	.57	2/1.58	.58	.60	.68	.65	.61	.57	.57	.62	.72	.68
Chicago	1.28	2/1.23	1.23	1.33	1.60	1.55	1.32	1.20	1.17	1.32	1.55	1.53
New York City	1.28	2/1.23	1.23	1.33	1.65	1.55	1.35	1.25	1.17	1.32	1.55	1.53

1/ Reported from a sample of shippers and/or truck brokers in specified areas for shipments during the first week of each month. 2/ Due to an embargo, truck rates are for shipments during the second week of the month.

SOURCE: Fruit and Vegetable Truck Rate Report.

Table 21.—U.S. monthly average price indexes for fruits, selected months, 1985-1986

Item	1985						1986					
	July	Aug.	Sept.	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	June
(1967=100)												
Wholesale price index:												
Fresh fruit	239.7	269.9	249.6	244.4	261.1	270.5	248.0	250.8	240.7	245.2	264.6	265.3
Citrus	228.7	267.6	283.0	254.3	201.5	211.5	204.7	199.2	208.4	212.4	223.8	228.4
Other fruit	243.0	268.9	232.3	238.0	286.6	295.7	265.6	272.0	252.8	257.6	280.7	279.5
Dried fruit	362.2	362.2	368.9	356.9	375.1	371.1	369.3	369.0	373.7	373.6	375.6	371.5
Canned fruit and juice	327.3	327.7	324.3	321.1	315.9	314.1	314.6	313.3	314.1	313.4	314.0	315.9
Canned fruit juice	281.2	281.6	277.5	277.0	270.2	271.4	274.1	272.7	273.9	273.8	277.1	277.0
Frozen fruit and juice	400.0	400.6	398.3	390.6	388.1	381.5	378.6	377.5	377.5	377.5	377.1	377.7
Consumer Price Index:												
Fresh fruit	370.0	375.9	368.5	358.5	336.3	335.8	350.8	353.3	352.0	367.9	385.5	372.4
(1977=100)												
Index of fruit prices received by growers 1/	181	171	182	186	189	174	160	154	150	146	157	177
												164

1/ Index for fresh and processed.

SOURCES: Bureau of Labor Statistics, U.S. Department of Labor, and Agricultural Prices, NASS, USDA.

Table 22.—Canned citrus juices: Florida canners' packs, supplies, and movement, 1983/84-1985/86

Item and season	Carryin	Pack		Supply		Movement		Stocks 1/		
		To date 1/	Total season	To date 1/	Total season	To date 1/	Total season			
1,000 cases, 24 No. 2's										
Oranges: 2/										
1983/84	1,414	8,175	9,084	9,589	10,498	8,232	9,311	1,357		
1984/85	1,187	6,763	7,425	7,950	8,612	6,807	7,723	1,143		
1985/86	1,889	6,777		7,666		6,506		1,160		
Grapefruit: 3/										
1983/84	2,422	8,645	9,513	11,067	11,935	8,888	10,231	2,179		
1984/85	1,704	9,856	10,552	11,560	12,256	9,739	10,968	1,821		
1985/86	1,288	9,226		10,514		8,546		1,968		
Blend:										
1983/84	150	523	555	673	705	541	606	132		
1984/85	100	583	615	683	715	517	579	166		
1985/86	136	530		666		515		151		

1/ For 1985/86 season, week ending August 9; 1984/85, August 10; 1983/84, August 11. These respective dates include data through the 45th week of each season. 2/ Includes reconstituted orange juice.

3/ Includes reconstituted grapefruit juice.

SOURCE: Florida Citrus Processors Association.

Table 23.—Frozen concentrated citrus juices: Florida canners' stocks, packs, supplies, and movement, 1983/84-1985/86

Item and season	Carryin	Pack		Supply		Movement		Stocks 1/		
		To date 1/	Total season	To date 1/	Total season	To date 1/	Total season			
1,000 gallons 2/										
Oranges:										
1983/84	12,824	186,468	239,907	229,292	282,731	158,570	228,332	70,722		
1984/85	420	186,384	209,554	240,804	263,974	148,536	215,746	92,268		
1985/86	1,228	185,441		233,669		154,988		78,681		
Grapefruit:										
1983/84	5,449	19,987	20,242	25,436	25,691	14,464	21,652	10,972		
1984/85	4,036	24,925	25,315	28,961	29,351	18,724	25,958	10,237		
1985/86	3,393	25,379		28,772		18,670		10,102		
Tangerines:										
1983/84	107	880	887	987	994	623	690	364		
1984/85	304	559	797	863	1,101	357	507	506		
1985/86	594	927		1,521		1,050		471		

1/ For the 1985/86 season, week ending August 9; 1984/85, August 10; 1983/84, August 11. These respective dates include data through the 36th week of each season. 2/ Oranges—42.0 degree Brix, grapefruit—40 degree Brix, and tangerines—42 degree Brix.

SOURCE: Florida Citrus Processors Association.

Table 24.--U.S. exports of selected fresh noncitrus fruits,
by destination, 1983/84-1985/86

Item and season 1/	Canada	Europe		Latin America	Taiwan	Hong Kong	Other	Total						
		EC 2/	Total											
Metric tons														
Apples:														
1983/84	38,855	14,821	26,242	12,449	37,838	23,500	83,476	222,360						
1984/85	30,861	8,990	18,109	11,195	35,642	29,720	84,308	209,835						
1985/86	25,202	12,046	21,144	10,852	30,065	22,920	42,609	152,792						
Grapes:														
1983/84	89,806	428	918	2,986	—	6,560	11,121	111,391						
1984/85	80,784	387	642	3,733	2,749	8,844	9,521	106,273						
1985/86	64,870	675	2,064	4,300	3,733	18,129	11,102	104,198						
Pears:														
1983/84	17,843	1,380	4,810	2,685	—	135	8,861	34,334						
1984/85	14,300	201	2,725	3,151	—	—	7,004	27,180						
1985/86	14,749	611	6,318	3,279	—	—	5,343	29,689						

1/ Season beginning July 1 for apples and pears, June 1 for grapes. 2/ Belgium-Luxembourg, France, West Germany, Italy, Netherlands, Greece, United Kingdom, Denmark, Ireland, Spain, and Portugal.

SOURCE: Foreign Agricultural Service, USDA.

Table 25.--U.S. exports of selected canned noncitrus fruits, by destination, 1983/84-1985/86

Item and season 1/	Canada	Europe		Latin America	Japan	Other	Total					
		EC 2/	Total									
Metric tons												
Peaches:												
1983/84	5,621	937	1,486	750	4,550	3,489	15,896					
1984/85	4,910	167	702	781	2,318	2,720	11,431					
1985/86	3,269	244	1,286	812	6,407	2,333	14,107					
Fruit cocktail:												
1983/84	6,608	926	2,001	1,210	2,286	10,792	22,897					
1984/85	7,853	334	1,805	1,624	2,125	7,707	21,114					
1985/86	4,313	390	1,155	1,699	3,246	6,716	17,129					
Pineapple:												
1983/84	7,469	3,442	4,455	152	971	609	13,656					
1984/85	6,014	1,605	1,953	74	—	1,392	9,433					
1985/86	4,556	1,197	1,677	54	—	3,666	9,953					
Cherries 3/:												
1983/84	620	80	99	25	731	632	2,107					
1984/85	240	45	143	27	653	925	1,988					
1985/86	180	123	200	27	556	1,192	2,155					
Apricots:												
1983/84	42	19	29	16	53	174	314					
1984/85	39	87	151	48	33	238	509					
1985/86	43	34	58	30	48	193	372					
Pears:												
1983/84	305	99	160	94	55	651	1,265					
1984/85	50	74	130	137	43	766	1,126					
1985/86	38	51	288	59	97	293	775					

1/ Season beginning July 1 for cherries, June 1 for other canned items. 2/ Belgium-Luxembourg, France, West Germany, Italy, Netherlands, Greece, United Kingdom, Denmark, Ireland, Spain, and Portugal.

3/ Excludes Maraschino cherries.

SOURCE: Foreign Agricultural Service, USDA.



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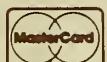
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